



RADIO TEST REPORT

FCC ID : UDX-60093011

Equipment : 4x4 Wi-Fi 6 Access Point with External Antennas

Brand Name : Cisco

Model Name : MR46E-HW


Applicant : Cisco Systems, Inc.
170 West Tasman Drive, San Jose, CA 95134 USA

Manufacturer : Cisco Systems, Inc.
170 West Tasman Drive, San Jose, CA 95134 USA

Standard : 47 CFR FCC Part 15.247

The product was received on Sep. 22, 2022, and testing was started from Jan. 05, 2023 and completed on Jun. 13, 2023. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.



Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory

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Photographs of EUT v01



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.247(a)	DTS Bandwidth	PASS	-
3.3	15.247(b)	Maximum Conducted Output Power	PASS	-
3.4	15.247(e)	Power Spectral Density	PASS	-
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.6	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the chapter "Measurement Uncertainty".

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Sam Chen**Report Producer: Viola Huang**



1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	Bluetooth Mode	Ch. Frequency (MHz)	Channel Number
2400-2483.5	LE	2402-2480	0-39 [40]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	BT-LE(1Mbps)	1	1TX

Note:

- ♦ Bluetooth LE uses a GFSK modulation.
- ♦ BWch is the nominal channel bandwidth.



1.1.2 Antenna Information

Set	Brand	Official Model Number	Antenna Type	Connector	Gain (dBi)
1	Cisco	MA-ANT-3-A6	Dipole antenna	RP-TNC	Note 1
2	Cisco	MA-ANT-3-B6	Dipole antenna	RP-TNC	
3	Cisco	MA-ANT-3-C6	Panel antenna	RP-TNC	
4	Cisco	MA-ANT-3-D6	Panel antenna	RP-TNC	
5	Cisco	MA-ANT-3-E6	Wide patch antenna	RP-TNC	
6	Cisco	MA-ANT-3-F6	Narrow patch antenna	RP-TNC	

Note1:

Radio 1 (2.4GHz)												
Set	Antenna Gain (dBi)				Cable Loss (dB)				True Gain (dBi)			
	Port 1	Port 2	Port 3	Port 4	Port 1	Port 2	Port 3	Port 4	Port 1	Port 2	Port 3	Port 4
1	3.80	3.80	3.80	3.80	1.01	0.41	0.41	1.00	2.79	3.39	3.39	2.80
2	3.00	3.00	3.00	3.00	1.01	0.41	0.41	1.00	1.99	2.59	2.59	2.00
3	4.90	4.90	4.90	4.90	1.01	0.41	0.41	1.00	3.89	4.49	4.49	3.90
4	2.90	2.90	2.90	2.90	1.01	0.41	0.41	1.00	1.89	2.49	2.49	1.90
5	7.00	7.00	7.00	7.00	1.01	0.41	0.41	1.00	5.99	6.59	6.59	6.00
6	11.20	11.20	11.20	11.20	1.01	0.41	0.41	1.00	10.19	10.79	10.79	10.20

Radio 2 (5GHz)												
Set	Antenna Gain (dBi)				Cable Loss (dB)				True Gain (dBi)			
	Port 1	Port 2	Port 3	Port 4	Port 1	Port 2	Port 3	Port 4	Port 1	Port 2	Port 3	Port 4
1	5.5	5.5	5.5	5.5	1.53	0.66	0.61	1.54	3.97	4.84	4.89	3.96
2	5.7	5.7	5.7	5.7	1.53	0.66	0.61	1.54	4.17	5.04	5.09	4.16
3	4.9	4.9	4.9	4.9	1.53	0.66	0.61	1.54	3.37	4.24	4.29	3.36
4	3.7	3.7	3.7	3.7	1.53	0.66	0.61	1.54	2.17	3.04	3.09	2.16
5	6.3	6.3	6.3	6.3	1.53	0.66	0.61	1.54	4.77	5.64	5.69	4.76
6	10.8	10.8	10.8	10.8	1.53	0.66	0.61	1.54	9.27	10.14	10.19	9.26



Radio 3 (2.4GHz + 5GHz)						
Set	Antenna Gain (dBi)		Cable Loss (dB)		True Gain (dBi)	
	Port 1		Port 1		Port 1	
	2.4GHz	5GHz	2.4GHz	5GHz	2.4GHz	5GHz
1	3.80	5.50	0.68	1.09	3.12	4.41
2	3.00	5.70	0.68	1.09	2.32	4.61
3	4.90	4.90	0.68	1.09	4.22	3.81
4	2.90	3.70	0.68	1.09	2.22	2.61
5	7.00	6.30	0.68	1.09	6.32	5.21
6	11.20	10.80	0.68	1.09	10.52	9.71

Radio 4 (Bluetooth)			
Set	Antenna Gain (dBi)	Cable Loss (dB)	True Gain (dBi)
	Port 1	Port 1	Port 1
1	3.80	0.56	3.24
2	3.00	0.56	2.44
3	4.90	0.56	4.34
4	2.90	0.56	2.34
5	7.00	0.56	6.44
6	11.20	0.56	10.64

Note2: The above information was declared by manufacturer.

Note3: The EUT has six set antennas.

The EUT has four radios, Radio 1 supports WLAN 2.4GHz (802.11b/g/n/ax mode), Radio 2 supports WLAN 5GHz (802.11a/n/ac/ax mode), Radio 3 supports WLAN 2.4GHz + 5GHz (scanning radio) and Radio 4 supports Bluetooth function.

Set 1 and Set 2 antennas are the same type antennas, only the highest gain antennas Set 1 for 2.4GHz, Set 2 for 5GHz were tested.



Note 4: Directional gain information

Type	Maximum Output Power	Power Spectral Density
Non-BF	Directional gain = Max.gain + array gain. For power measurements on IEEE 802.11 devices Array Gain = 0 dB (i.e., no array gain) for N ANT ≤ 4	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left[\sum_{k=1}^{N_{ANT}} g_{j,k} \right]^2}{N_{ANT}} \right]$
BF	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left[\sum_{k=1}^{N_{ANT}} g_{j,k} \right]^2}{N_{ANT}} \right]$	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left[\sum_{k=1}^{N_{ANT}} g_{j,k} \right]^2}{N_{ANT}} \right]$

Ex.

Directional Gain (NSS1) formula :

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left[\sum_{k=1}^{N_{ANT}} g_{j,k} \right]^2}{N_{ANT}} \right]$$

$NSS1(g1,1) = 10^{G1/20}$; $NSS1(g1,2) = 10^{G2/20}$; $NSS1(g1,3) = 10^{G3/20}$; $NSS1(g1,4) = 10^{G4/20}$

$g_{j,k} = (NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3) + NSS1(g1,4))^2$

$DG = 10 \log[(NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3) + NSS1(g1,4))^2 / N_{ANT}] \Rightarrow 10$

$\log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20} + 10^{G4/20})^2 / N_{ANT}]$

Where ;

Antenna Set 1

2.4G G1= 2.79 dBi ; G2= 3.39 dBi ; G3= 3.39 dBi ; G4= 2.8 dBi ;

4TX DG= 9.12dBi ; 2TX DG= 6.11dBi

Antenna Set 2

5G G1= 4.17 dBi ; G2= 5.04 dBi ; G3= 5.09 dBi ; G4= 4.16 dBi ;

4TX DG= 10.65dBi ; 2TX DG= 7.63dBi

Antenna Set 3

2.4G G1= 3.89 dBi ; G2= 4.49 dBi ; G3= 4.49 dBi ; G4= 3.9 dBi ;

4TX DG= 10.22dBi ; 2TX DG= 7.21dBi

5G G1= 3.37 dBi ; G2= 4.24 dBi ; G3= 4.29 dBi ; G4= 3.36 dBi ;

4TX DG= 9.85dBi ; 2TX DG= 6.83dBi

Antenna Set 4

2.4G G1= 1.89 dBi ; G2= 2.49 dBi ; G3= 2.49 dBi ; G4= 1.9 dBi ;

4TX DG= 8.22dBi ; 2TX DG= 5.21dBi

5G G1= 2.17 dBi ; G2= 3.04 dBi ; G3= 3.09 dBi ; G4= 2.16 dBi ;

4TX DG= 8.65dBi ; 2TX DG= 5.63dBi



Antenna Set 5

2.4G G1= 5.99 dBi ; G2= 6.59 dBi ; G3= 6.59 dBi ; G4= 6 dBi ;
4TX DG= 12.32dBi ; 2TX DG= 9.31dBi
5G G1= 4.77 dBi ; G2= 5.64 dBi ; G3= 5.69 dBi ; G4= 4.76 dBi ;
4TX DG= 11.25dBi ; 2TX DG= 8.23dBi

Antenna Set 6

2.4G G1= 10.19 dBi ; G2= 10.79 dBi ; G3= 10.79 dBi ; G4= 10.2 dBi ;
4TX DG= 16.52dB i ; 2TX DG= 13.51dBi
5G G1= 9.27 dBi ; G2= 10.14 dBi ; G3= 10.19 dBi ; G4= 9.26 dBi ;
4TX DG= 15.75dBi ; 2TX DG= 12.73dBi

<For Radio 1 (2.4GHz Functions) and Radio 2 (5GHz Functions)>

For 1TX/4RX:

Only Port 1 can be use as transmitting antenna
Port 1, Port 2, Port 3 and Port 4 can be used as receiving antennas.
Port 1, Port 2, Port 3 and Port 4 could receive simultaneously.

For 2TX/4RX:

Only Port 1 and Port 2 can be use as transmitting antenna
Port 1, Port 2, Port 3 and Port 4 can be used as receiving antennas.
Port 1, Port 2, Port 3 and Port 4 could receive simultaneously.

For 4TX/4RX:

Port 1, Port 2, Port 3 and Port 4 can be use as transmitting/receiving antenna
Port 1, Port 2, Port 3 and Port 4 could receive simultaneously.

<For Radio 3 / 2.4GHz + 5GHz Functions>

Only Port 1 can be used as receiving antennas.

<For Radio 4 / Bluetooth Functions>

Only Port 1 can be use as transmitting/receiving antenna.



1.1.3 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
BT-LE(1Mbps)	0.711	1.48	436u	3k

Note:

- ♦ DC is Duty Cycle.
- ♦ DCF is Duty Cycle Factor.

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter or PoE		
Function	<input checked="" type="checkbox"/> Point-to-multipoint	<input type="checkbox"/> Point-to-point	
Test Software Version	telnet (version: 6.1.7601)		
Support Mode	<input checked="" type="checkbox"/> LE 1M PHY: 1 Mb/s		
	<input type="checkbox"/> LE Coded PHY (S=2): 500 Kb/s		
	<input type="checkbox"/> LE Coded PHY (S=8): 125 Kb/s		
	<input type="checkbox"/> LE 2M PHY: 2 Mb/s		

Note: The above information was declared by manufacturer.



1.2 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ◆ 47 CFR FCC Part 15.247
- ◆ ANSI C63.10-2013

The following reference test guidance is not within the scope of accreditation of TAF.

- ◆ FCC KDB 558074 D01 v05r02
- ◆ FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location Information	
Test Lab. : Sporton International Inc. Hsinchu Laboratory	
Hsinchu (TAF: 3787)	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.) TEL: 886-3-656-9065 FAX: 886-3-656-9085 Test site Designation No. TW3787 with FCC. Conformity Assessment Body Identifier (CABID) TW3787 with ISED.

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH02-CB	Mason Chan	16.7~17.3 / 58~69	Jan. 09, 2023 ~ Apr. 24, 2023
Radiated<1GHz	03CH06-CB	Roy Mai	22.5~23.9 / 59~61	May 25, 2023 ~ May 26, 2023
Radiated>1GHz	03CH01-CB	Gordon Hung	21.2~22.3 / 56~59	Jan. 05, 2023 ~ May 30, 2023
	03CH03-CB		22.4~23.5 / 55~58	
	03CH04-CB		22~23 / 55~58	
	03CH06-CB		21.7~22.8 / 56~59	
AC Conduction	CO01-CB	Gray Lee	22~23 / 65~66	Jun. 13, 2023



1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

Test date before Jun. 01, 2023

Test Items	Uncertainty	Remark
Radiated Emission (9kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	5.2 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.7 dB	Confidence levels of 95%
Conducted Emission	3.2 dB	Confidence levels of 95%
Output Power Measurement	0.8 dB	Confidence levels of 95%
Power Density Measurement	3.2 dB	Confidence levels of 95%
Bandwidth Measurement	2.0 %	Confidence levels of 95%

Test date after May 31, 2023

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.4 dB	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

For Set 1 antennas:

Mode	Power Setting
BT-LE(1Mbps)	-
2402MHz	200
2440MHz	200
2478MHz	200
2480MHz	125

For Set 3 antennas:

Mode	Power Setting
BT-LE(1Mbps)	-
2402MHz	200
2440MHz	200
2478MHz	170
2480MHz	115

For Set 4 antennas:

Mode	Power Setting
BT-LE(1Mbps)	-
2402MHz	200
2440MHz	200
2478MHz	200
2480MHz	150

For Set 5 antennas:

Mode	Power Setting
BT-LE(1Mbps)	-
2402MHz	200
2440MHz	200
2478MHz	155
2480MHz	95

For Set 6 antennas:

Mode	Power Setting
BT-LE(1Mbps)	-
2402MHz	200
2440MHz	200
2478MHz	155
2480MHz	85



2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz
Operating Mode	Normal Link
1	EUT (Radio 1 + Radio 2 + Radio 3: 2.4GHz + Radio 4) + Adapter 1 + Set 6
2	EUT (Radio 1 + Radio 2 + Radio 3: 5GHz + Radio 4) + Adapter 2 + Set 6
Mode 2 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3~5 will follow this same test mode.	
3	EUT (Radio 1 + Radio 2 + Radio 3: 5GHz + Radio 4) + Adapter 2 + Set 6
4	EUT (Radio 1 + Radio 2 + Radio 3: 5GHz + Radio 4) + PoE 1 + Set 6
5	EUT (Radio 1 + Radio 2 + Radio 3: 5GHz + Radio 4) + PoE 2 + Set 6
For operating mode 5 is the worst case and it was record in this test report.	

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains
1	EUT (Radio 4) + Antenna Set 1
2	EUT (Radio 4) + Antenna Set 3
3	EUT (Radio 4) + Antenna Set 4
4	EUT (Radio 4) + Antenna Set 5
5	EUT (Radio 4) + Antenna Set 6



The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	Normal Link
1. Aftering evaluating, EUT in X axis has been evaluated as the worst case. So the measurement will follow this same test configuration. 2. The EUT with antenna set 2, set 3 in Z axis, set 3 in Y axis, set 6 were performed the testing, EUT with antenna set 3 in Y axis has been evaluated as the worst case. So the measurement will follow this same test configuration. 3. The EUT with adapter 1~2 and PoE 1~2 were performed the testing, EUT with adapter 1 has been evaluated as the worst case. So the measurement will follow this same test configuration. 4. The radio 3 (2.4GHz/5GHz) of EUT were performed the testing, radio 3 (2.4GHz) of EUT has been evaluated as the worst case. So the measurement will follow this same test configuration.	
1	EUT in X axis (Radio 1 + Radio 2 + Radio 3: 2.4GHz + Radio 4) + Adapter 1 + Set 3 in Y axis
Operating Mode > 1GHz	CTX After evaluating, the worst case axis was found as below. So the measurement will follow this same test configuration. For antenna set 3 and set 4: After evaluating, the worst case axis was found as below. So the measurement will follow this same test configuration.
1	EUT in X axis Radio 4 + Antenna Set 1
2	EUT in X axis Radio 4 + Antenna in Z axis Set 3
3	EUT in X axis Radio 4 + Antenna in Y axis Set 4
4	EUT in X axis for harmonic and bandedge in Z axis Radio 4 + Antenna Set 5
5	EUT in Z axis Radio 4 + Antenna Set 6

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	EUT: Radio 1 (WLAN 2.4GHz) + Radio 2 (WLAN 5GHz) + Radio 4 (Bluetooth)
Refer to Sporton Test Report No.: FA960317-14 for Co-location RF Exposure Evaluation.	

Note1: For AC power-line conducted emissions: Only the highest gain antennas "Set 6 (Narrow patch antenna)" was tested and recorded in the report. For Radiated Emissions below 1GHz test: Only the highest gain antenna was selected from each different types of antenna to test and record in this report.



Note2: The PoE below are for measurement only, would not be marketed.
PoE information as below:

Power	Brand	Model
PoE 1	CISCO	MA-INJ-5
PoE 2	CISCO	MA-INJ-4

2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link:

During the test, the EUT operation to normal function.

2.4 Accessories

Accessories				
Equipment Name	Brand Name	Model Name	P/N	Rating
Adapter 1	CISCO	KSAS0361200250HU	-	Input: 100-240V, 50/60Hz, 1.0A Output: 12V, 2.5A
Adapter 2	CISCO	MA-PWR-30W-US	640-39010-A	Input: 100-240V, 50-60Hz, 0.8A Max. Output: 12V, 2.5A 30W
Other				
Wall-mounted rack*1				

2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	2.5G LAN PC	DELL	T3400	N/A
B	2.4G NB	DELL	E6430	N/A
C	5G NB	DELL	E6430	N/A
D	Scan Radio (2.4G or 5G) NB	DELL	E6430	N/A
E	PoE 2	CISCO	MA-INJ-4	N/A



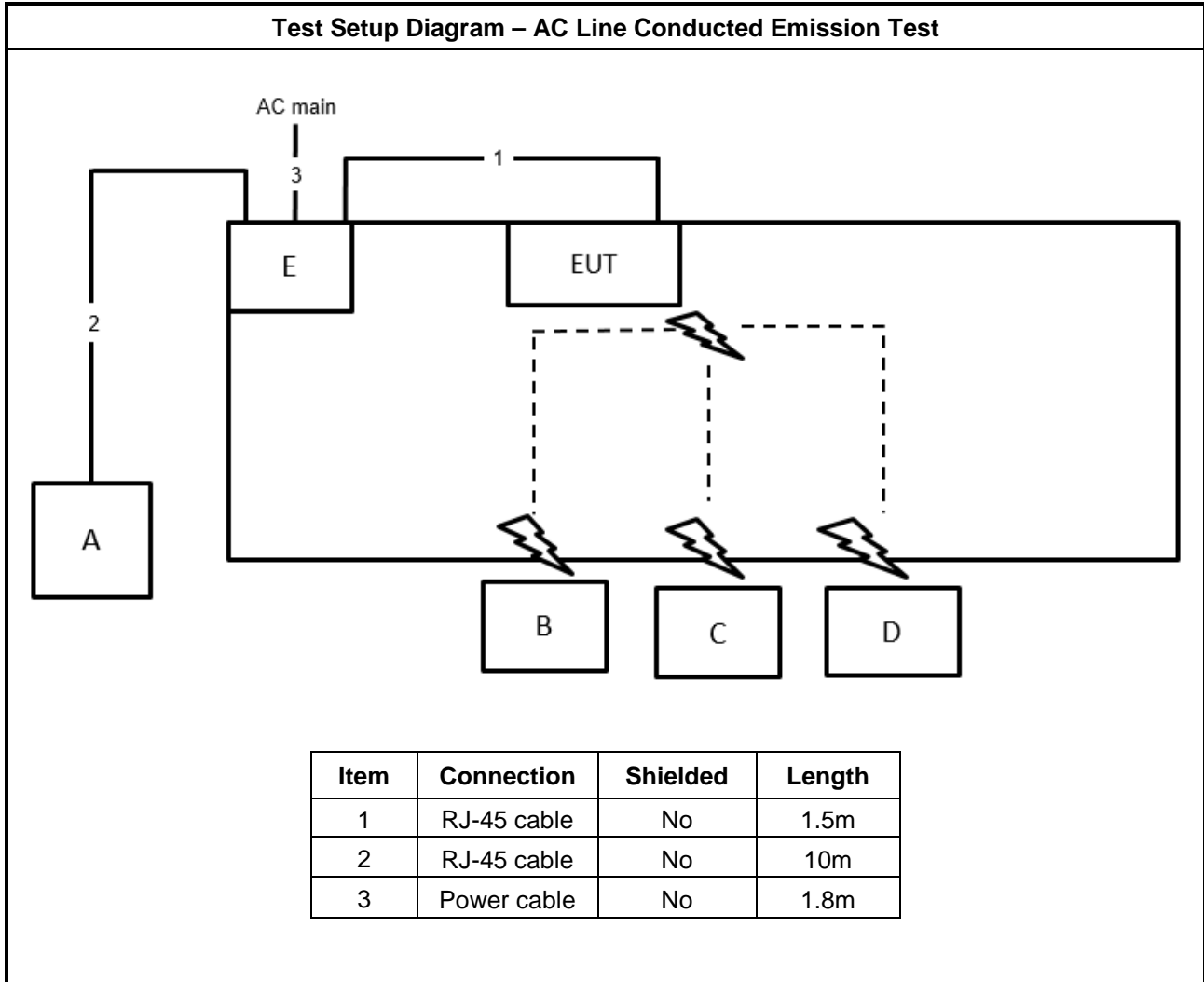
For Radiated (below 1GHz):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB (LAN)	DELL	E6430	N/A
B	NB (WIFI 2.4G)	DELL	E6430	N/A
C	NB (WIFI 5G)	DELL	E6430	N/A
D	NB (WIFI Scan Radio 2.4G/5G)	DELL	E6430	N/A

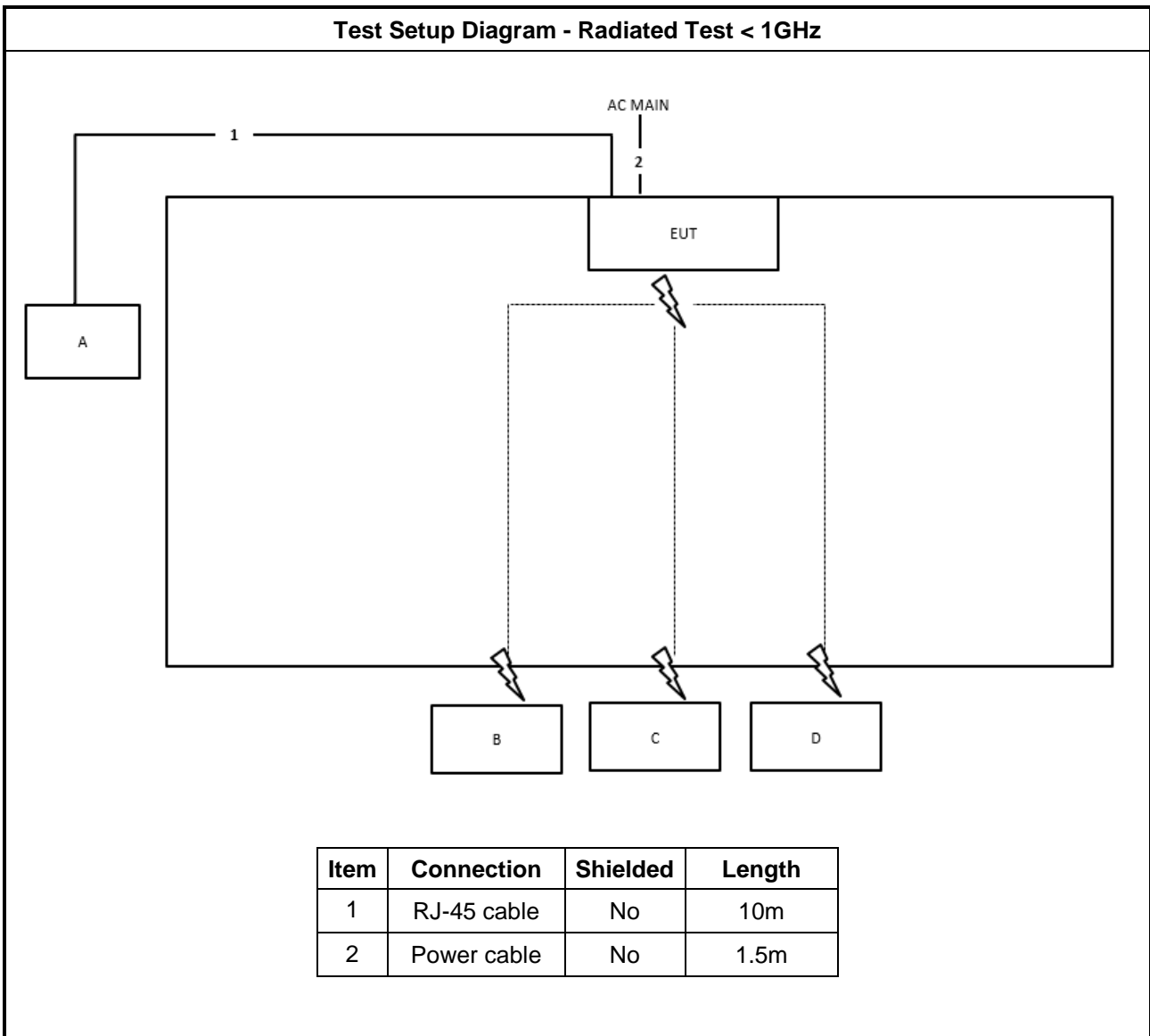
For Radiated and RF Conducted:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A

2.6 Test Setup Diagram

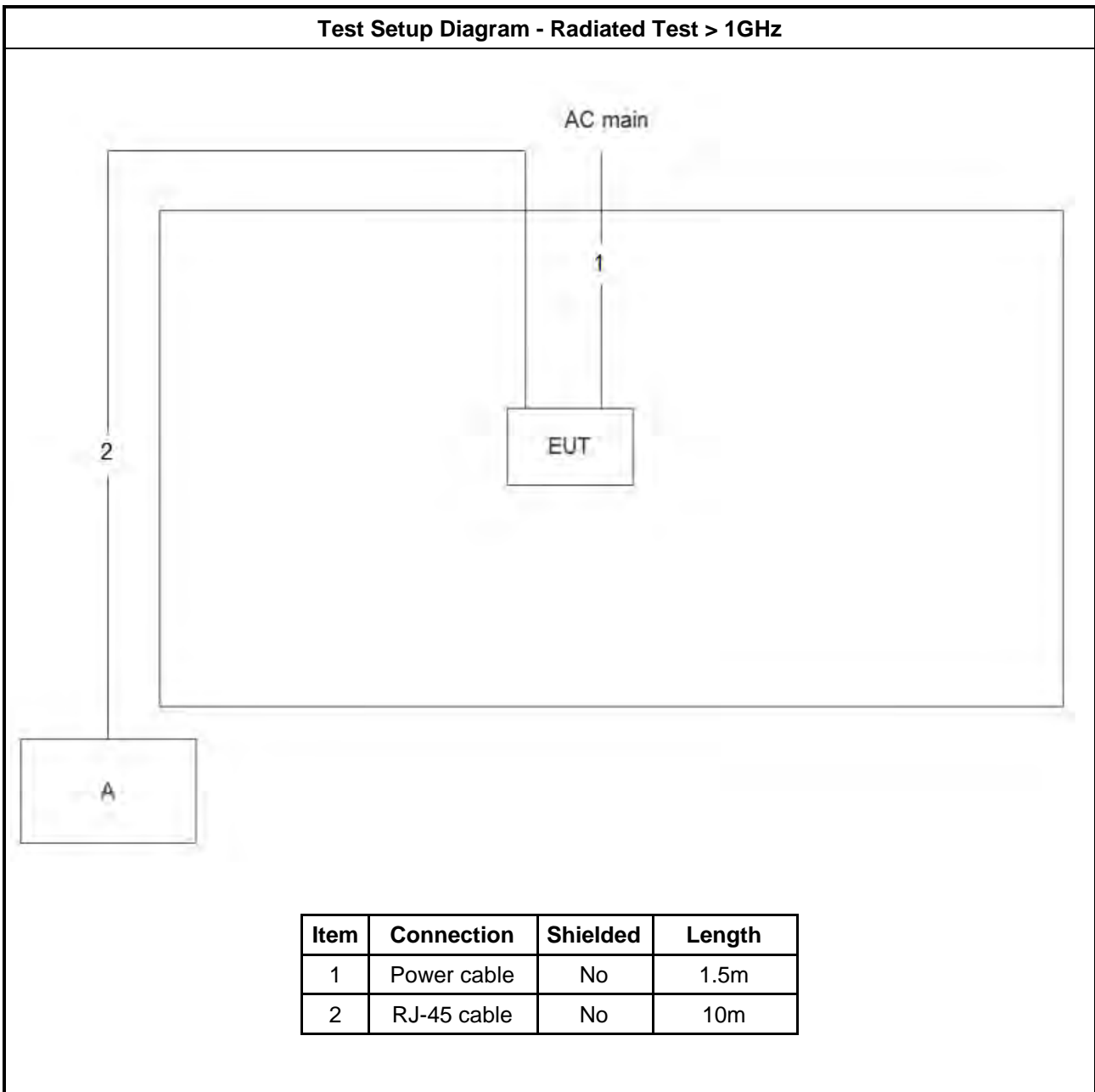


Test Setup Diagram - Radiated Test < 1GHz



Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	Power cable	No	1.5m

Test Setup Diagram - Radiated Test > 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	10m



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

Note 1: * Decreases with the logarithm of the frequency.

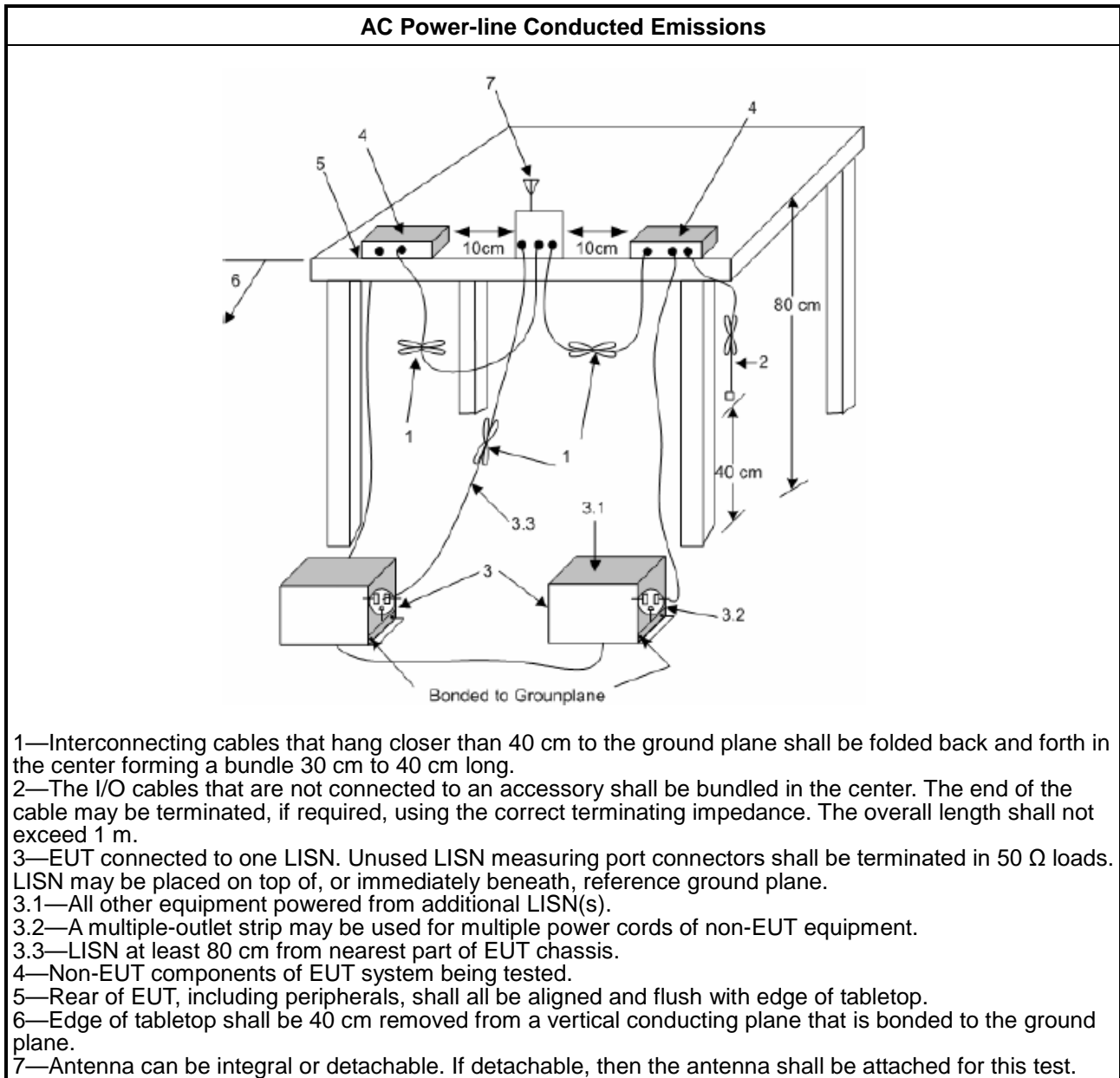
3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method
▪ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Test Setup



3.1.5 Measurement Results Calculation

The measured Level is calculated using:

- a. Corrected Reading: LISN Factor (LISN) + Attenuator (AT/AUX) + Cable Loss (CL) + Read Level (Raw) = Level
- b. Margin = -Limit + Level

3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit
Systems using digital modulation techniques:
<ul style="list-style-type: none"> ▪ 6 dB bandwidth \geq 500 kHz.

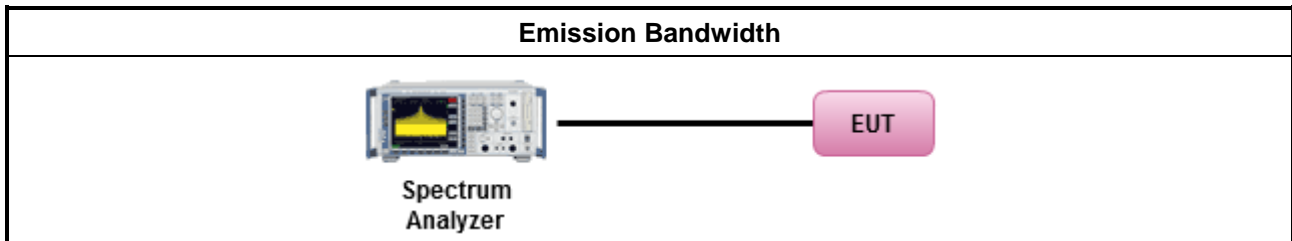
3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method
<ul style="list-style-type: none"> ▪ For the emission bandwidth shall be measured using one of the options below:
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.1 Option 1 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.2 & C63.10 clause 11.8.2 Option 2 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
	<ul style="list-style-type: none"> ▪ If $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)
	<ul style="list-style-type: none"> ▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ dBm
	<ul style="list-style-type: none"> ▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> ▪ Smart antenna system (SAS):
	<ul style="list-style-type: none"> - Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> - Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3$ dBm
	<ul style="list-style-type: none"> - Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8$ dB dBm
<p>P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.</p>	

3.3.2 Measuring Instruments

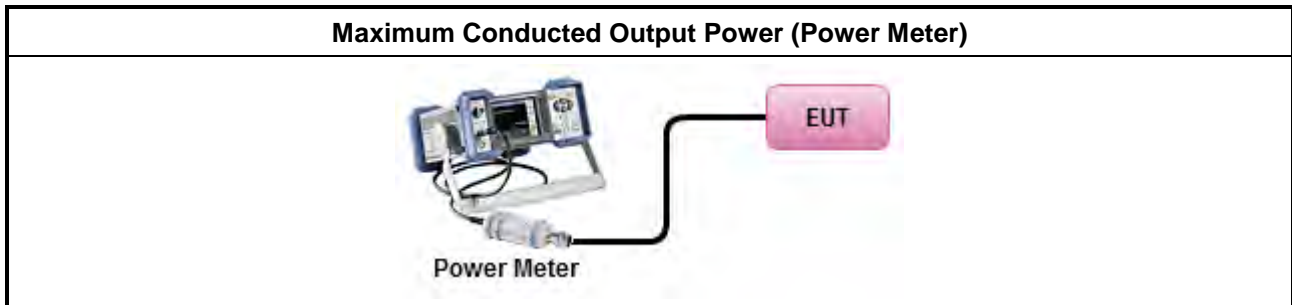
Refer a test equipment and calibration data table in this test report.



3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ Maximum Peak Conducted Output Power 	
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.1.1 & C63.10 clause 11.9.1.1 (RBW ≥ EBW method).
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.1.3 & C63.10 clause 11.9.1.3 (peak power meter).
<ul style="list-style-type: none"> ▪ Maximum Conducted Output Power 	
[duty cycle ≥ 98% or external video / power trigger]	
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.2 Method AVGSA-1.
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.3 Method AVGSA-1A. (alternative)
duty cycle < 98% and average over on/off periods with duty factor	
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.4 Method AVGSA-2.
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.5 Method AVGSA-2A (alternative)
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.6 Method AVGSA-3
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.2 & C63.10 clause 11.9.2.2.7 Method AVGSA-3A (alternative)
Measurement using a power meter (PM)	
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.1 Method AVGPM (using an RF average power meter).
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.3.2.3 & C63.10 clause 11.9.2.3.2 Method AVGPM-G (using an gate RF average power meter).
<ul style="list-style-type: none"> ▪ For conducted measurement. 	
<ul style="list-style-type: none"> ▪ If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them. 	
<ul style="list-style-type: none"> ▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$ 	

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C



3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit
<ul style="list-style-type: none"> Power Spectral Density (PSD) ≤ 8 dBm/3kHz

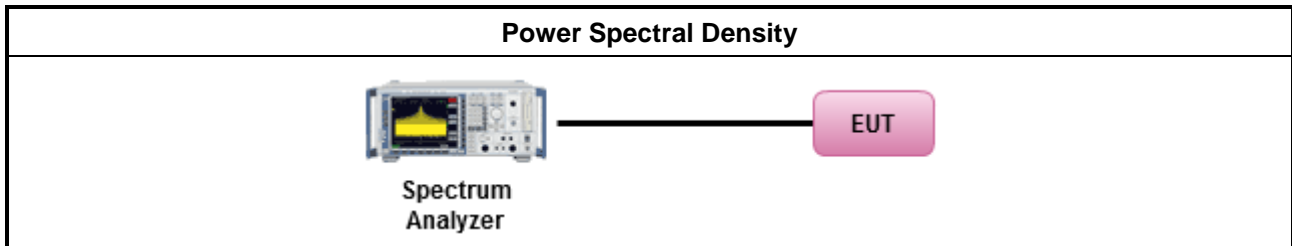
3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.4.3 Test Procedures

Test Method
<ul style="list-style-type: none"> Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.4 & C63.10 clause 11.10 Method Max. PSD. [duty cycle ≥ 98% or external video / power trigger]
<ul style="list-style-type: none"> For conducted measurement.
<ul style="list-style-type: none"> If The EUT supports multiple transmit chains using options given below: <ul style="list-style-type: none"> <input type="checkbox"/> Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace. <input type="checkbox"/> Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits, <input type="checkbox"/> Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dBc)
Peak output power procedure	20
Average output power procedure	30

Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level.

Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.

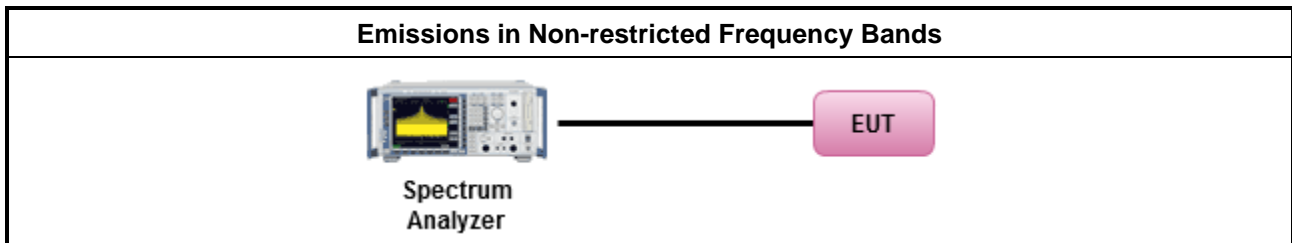
3.5.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method
<ul style="list-style-type: none"> Refer as FCC KDB 558074, clause 8.5 for unwanted emissions into non-restricted bands.

3.5.4 Test Setup



3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E



3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB / decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

3.6.2 Measuring Instruments

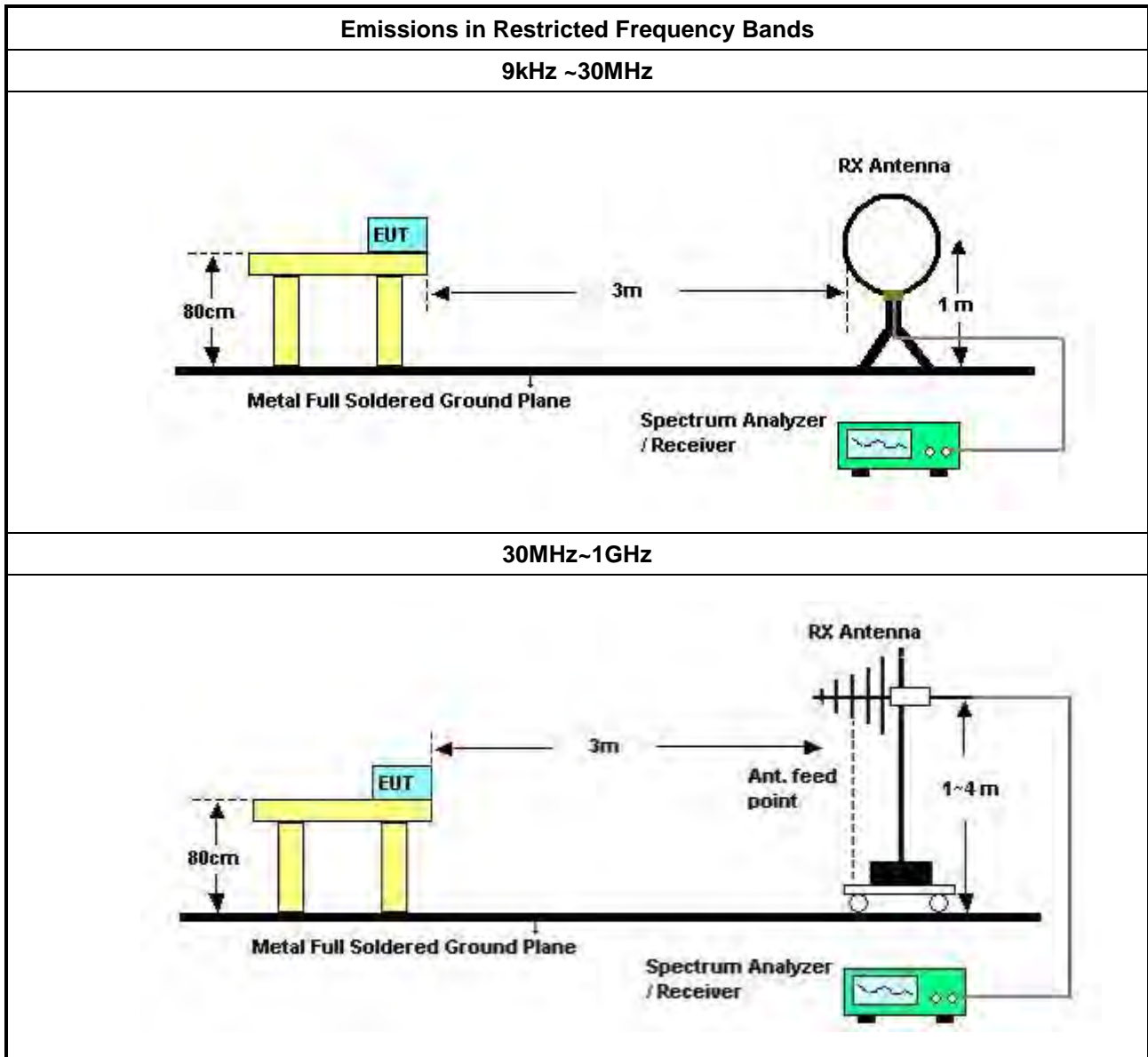
Refer a test equipment and calibration data table in this test report.

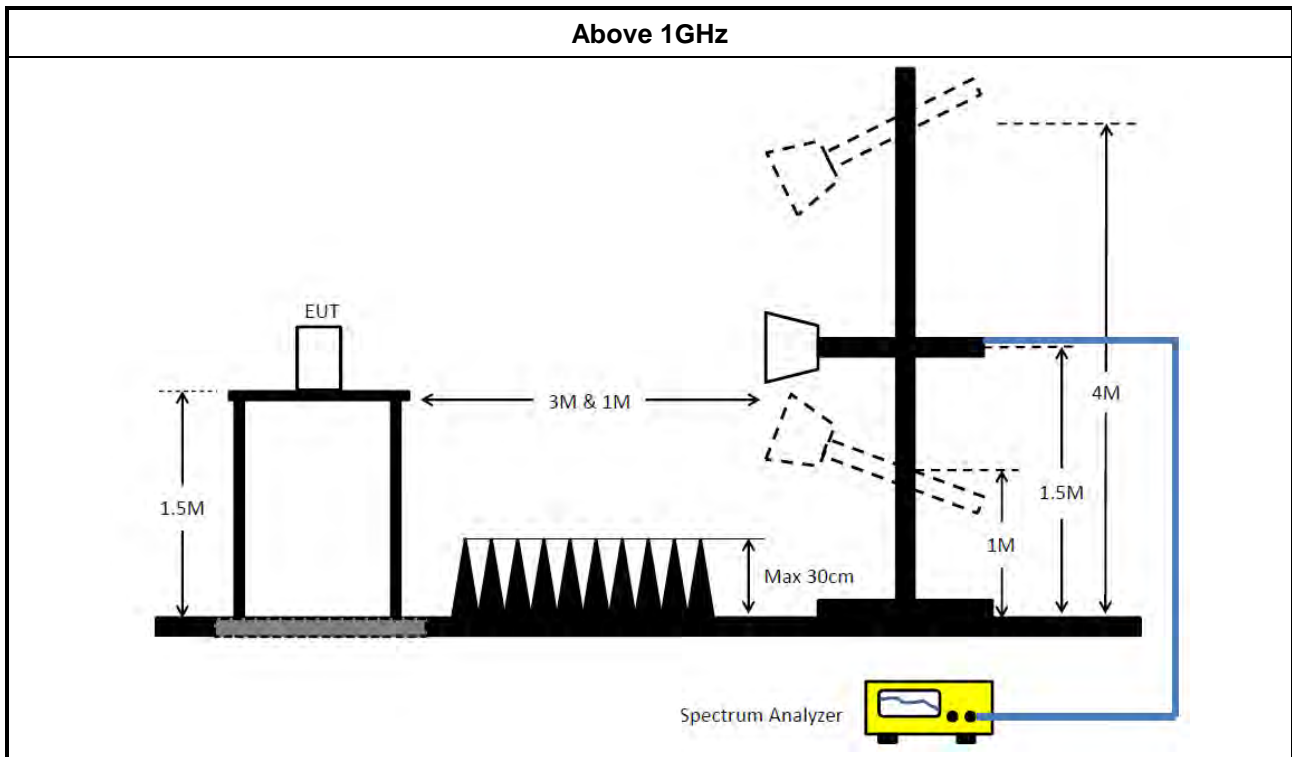


3.6.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ The average emission levels shall be measured in [duty cycle \geq 98 or duty factor]. 	
<ul style="list-style-type: none"> ▪ Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band. 	
<ul style="list-style-type: none"> ▪ For the transmitter unwanted emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074, clause 8.6 for unwanted emissions into restricted bands.
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.1(trace averaging for duty cycle \geq 98%).
	<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.2(trace averaging + duty factor).
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.5.3(Reduced VBW \geq 1/T).
	<input type="checkbox"/> Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW \geq 1/T, where T is pulse time.
	<input type="checkbox"/> Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
	<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.6 & C63.10 clause 11.12.2.4 measurement procedure peak limit.
<ul style="list-style-type: none"> ▪ For the transmitter band-edge emissions shall be measured using following options below: 	
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074 clause 8.7 & c63.10 clause 11.13.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074, clause 8.7 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.
	<ul style="list-style-type: none"> ▪ Refer as FCC KDB 558074, clause 8.7 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).
	<ul style="list-style-type: none"> ▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB
	<ul style="list-style-type: none"> ▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.

3.6.4 Test Setup





3.6.5 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = Level.

3.6.6 Emissions in Restricted Frequency Bands (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10th harmonic or 40 GHz, whichever is appropriate.

3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F



4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Feb. 20, 2023	Feb. 19, 2024	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz~100MHz	Feb. 16, 2023	Feb. 15, 2024	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Apr. 27, 2023	Apr. 26, 2024	Conduction (CO01-CB)
Pulse Limiter	Rohde&Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Feb. 09, 2023	Feb. 08, 2024	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	Oct. 18, 2022	Oct. 17, 2023	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	31244	9kHz - 30 MHz	Mar. 23, 2023	Mar. 22, 2024	Radiation (03CH06-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH06-CB	30 MHz ~ 1 GHz	Aug. 04, 2022	Aug. 03, 2023	Radiation (03CH06-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH06-CB	1GHz ~18GHz 3m	Sep. 30, 2022	Sep. 29, 2023	Radiation (03CH06-CB)
Bilog Antenna with 6 dB attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37878 & AT-N0606	20MHz ~ 2GHz	Jul. 31, 2022	Jul. 30, 2023	Radiation (03CH06-CB)
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120D-1292	1GHz~18GHz	Aug. 09, 2022	Aug. 08, 2023	Radiation (03CH06-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	310N	187290	0.1MHz ~ 1GHz	Nov. 04, 2022	Nov. 03, 2023	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	83017A	MY53270064	0.5GHz~26.5GHz	Aug. 02, 2022	Aug. 01, 2023	Radiation (03CH06-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 16, 2022	Nov. 15, 2023	Radiation (03CH06-CB)
Spectrum analyzer	R&S	FSP40	100080	9kHz~40GHz	Dec. 21, 2022	Dec. 20, 2023	Radiation (03CH06-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 17, 2022	Jun. 16, 2023	Radiation (03CH06-CB)
RF Cable-low	Woken	RG402	Low Cable-24+68	30MHz~1GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-68	1GHz~18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-05+68	1GHz~18GHz	Dec. 21, 2022	Dec. 20, 2023	Radiation (03CH06-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH06-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH06-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH06-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH06-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH01-CB	1GHz ~18GHz 3m	May 06, 2022	May 05, 2023	Radiation (03CH01-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH01-CB	1GHz ~18GHz 3m	May 05, 2023	May 04, 2024	Radiation (03CH01-CB)
Horn Antenna	ETS-LINDGR EN	3115	00075790	750MHz ~ 18GHz	Nov. 04, 2022	Nov. 03, 2023	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02121	1GHz ~ 26.5GHz	May 19, 2022	May 18, 2023	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02121	1GHz ~ 26.5GHz	May 18, 2023	May 17, 2024	Radiation (03CH01-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 16, 2022	Nov. 15, 2023	Radiation (03CH01-CB)
Signal Analyzer	R&S	FSV3044	101437	10kHz ~ 44GHz	Nov. 29, 2022	Nov. 29, 2023	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16	1 GHz ~ 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16+17	1 GHz ~ 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH01-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH01-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH03-CB	1GHz ~18GHz 3m	May 05, 2022	May 04, 2023	Radiation (03CH03-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH03-CB	1GHz ~18GHz 3m	May 04, 2023	May 03, 2024	Radiation (03CH03-CB)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	BBHA 9120 D 1370	1GHz~18GHz	Jun. 23, 2022	Jun. 22, 2023	Radiation (03CH03-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH03-CB)
Pre-Amplifier	Agilent	8449B	3008A02097	1GHz ~ 26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH03-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 16, 2022	Nov. 15, 2023	Radiation (03CH03-CB)
Spectrum Analyzer	R&S	FSP40	100019	9kHz ~ 40GHz	Jun. 10, 2022	Jun. 09, 2023	Radiation (03CH03-CB)
RF Cable-high	Woken	RG402	High Cable-20+29	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH03-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-29	1GHz ~ 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH03-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH03-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH04-CB	1GHz ~18GHz 3m	Feb. 24, 2022	Feb. 23, 2023	Radiation (03CH04-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH04-CB	1GHz ~18GHz 3m	Feb. 23, 2023	Feb. 22, 2024	Radiation (03CH04-CB)
Horn Antenna	ETS-Lindgren	3115	00143147	750MHz~18GHz	Oct. 12, 2022	Oct. 11, 2023	Radiation (03CH04-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2022	Aug. 21, 2023	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	83017A	MY53270063	0.5GHz~26.5GHz	Jul. 01, 2022	Jun. 30, 2023	Radiation (03CH04-CB)
Pre-Amplifier	SGH	SGH184	20221107-3	18GHz ~ 40GHz	Nov. 16, 2022	Nov. 15, 2023	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Mar. 28, 2022	Mar. 27, 2023	Radiation (03CH04-CB)
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Mar. 21, 2023	Mar. 20, 2024	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21	1GHz - 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21+67	1GHz - 18GHz	Oct. 03, 2022	Oct. 02, 2023	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5+6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#5	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH04-CB)
High Cable	Woken	WCA0929M	40G#6	1GHz ~ 40 GHz	Dec. 07, 2022	Dec. 06, 2023	Radiation (03CH04-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH04-CB)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Aug. 15, 2022	Aug. 14, 2023	Conducted (TH02-CB)
Power Sensor	Anritsu	MA2411B	1126203	300MHz~40GHz	Oct. 17, 2022	Oct. 16, 2023	Conducted (TH02-CB)
Power Meter	Anritsu	ML2495A	1210004	300MHz~40GHz	Oct. 17, 2022	Oct. 16, 2023	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-01	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH02-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-03	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-05	1 GHz – 18 GHz	Oct. 03, 2022	Oct. 02, 2023	Conducted (TH02-CB)
Switch	SPTCB	SP-SWI	SWI-02	1 GHz –26.5 GHz	Oct. 04, 2022	Oct. 03, 2023	Conducted (TH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH02-CB)

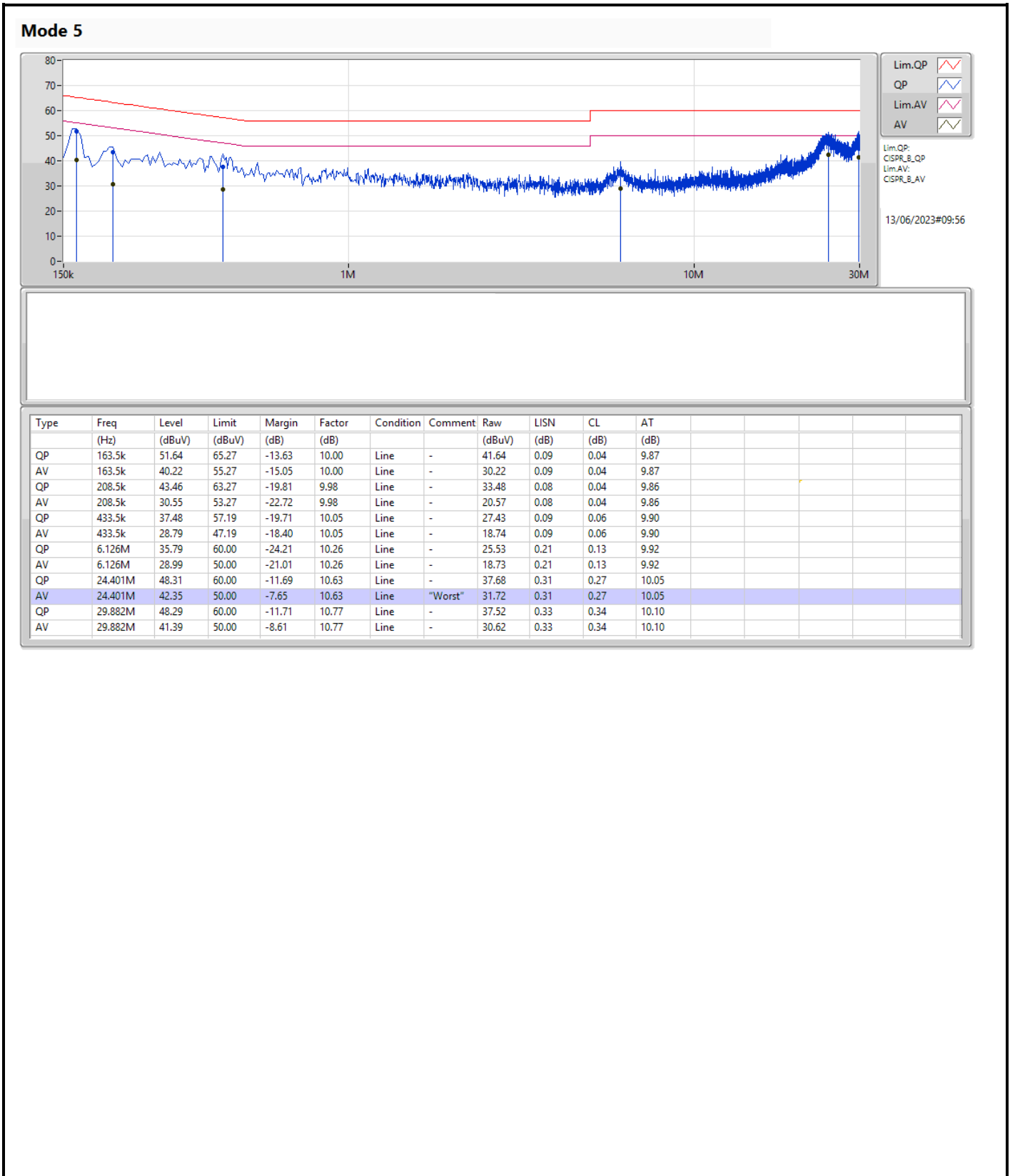
Note: Calibration Interval of instruments listed above is one year.

N.C.R. means Non-Calibration required.

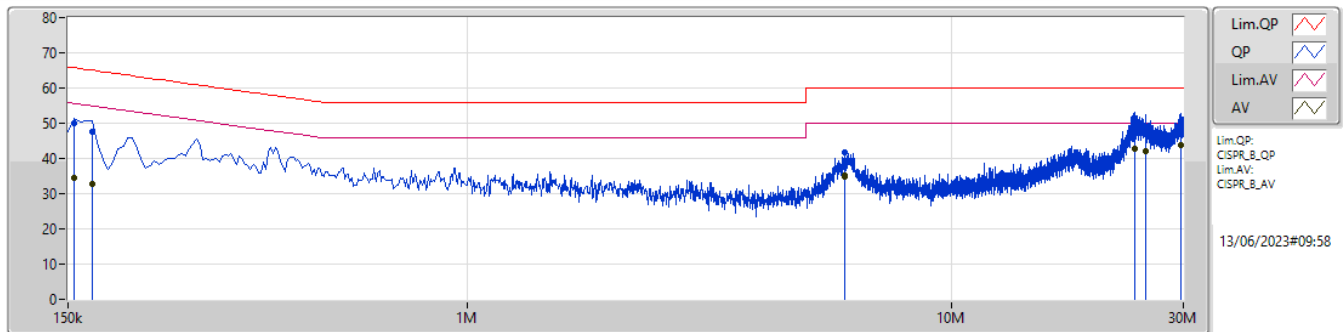


Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 5	Pass	AV	29.634M	43.90	50.00	-6.10	Neutral



Mode 5



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	154.5k	49.93	65.75	-15.82	9.98	Neutral	-	39.95	0.07	0.04	9.87
AV	154.5k	34.65	55.75	-21.10	9.98	Neutral	-	24.67	0.07	0.04	9.87
QP	168k	47.48	65.06	-17.58	9.98	Neutral	-	37.50	0.07	0.04	9.87
AV	168k	32.68	55.06	-22.38	9.98	Neutral	-	22.70	0.07	0.04	9.87
QP	6.018M	41.62	60.00	-18.38	10.22	Neutral	-	31.40	0.17	0.13	9.92
AV	6.018M	35.02	50.00	-14.98	10.22	Neutral	-	24.80	0.17	0.13	9.92
QP	6.018M	41.72	60.00	-18.28	10.22	Neutral	-	31.50	0.17	0.13	9.92
AV	6.018M	34.91	50.00	-15.09	10.22	Neutral	-	24.69	0.17	0.13	9.92
QP	23.829M	49.17	60.00	-10.83	10.65	Neutral	-	38.52	0.34	0.27	10.04
AV	23.829M	42.61	50.00	-7.39	10.65	Neutral	-	31.96	0.34	0.27	10.04
QP	25.134M	48.62	60.00	-11.38	10.68	Neutral	-	37.94	0.35	0.28	10.05
AV	25.134M	41.98	50.00	-8.02	10.68	Neutral	-	31.30	0.35	0.28	10.05
QP	29.634M	50.74	60.00	-9.26	10.85	Neutral	-	39.89	0.41	0.34	10.10
AV	29.634M	43.90	50.00	-6.10	10.85	Neutral	"Worst"	33.05	0.41	0.34	10.10



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-LE(1Mbps)	636.25k	1.029M	1M03F1D	632.5k	1.026M

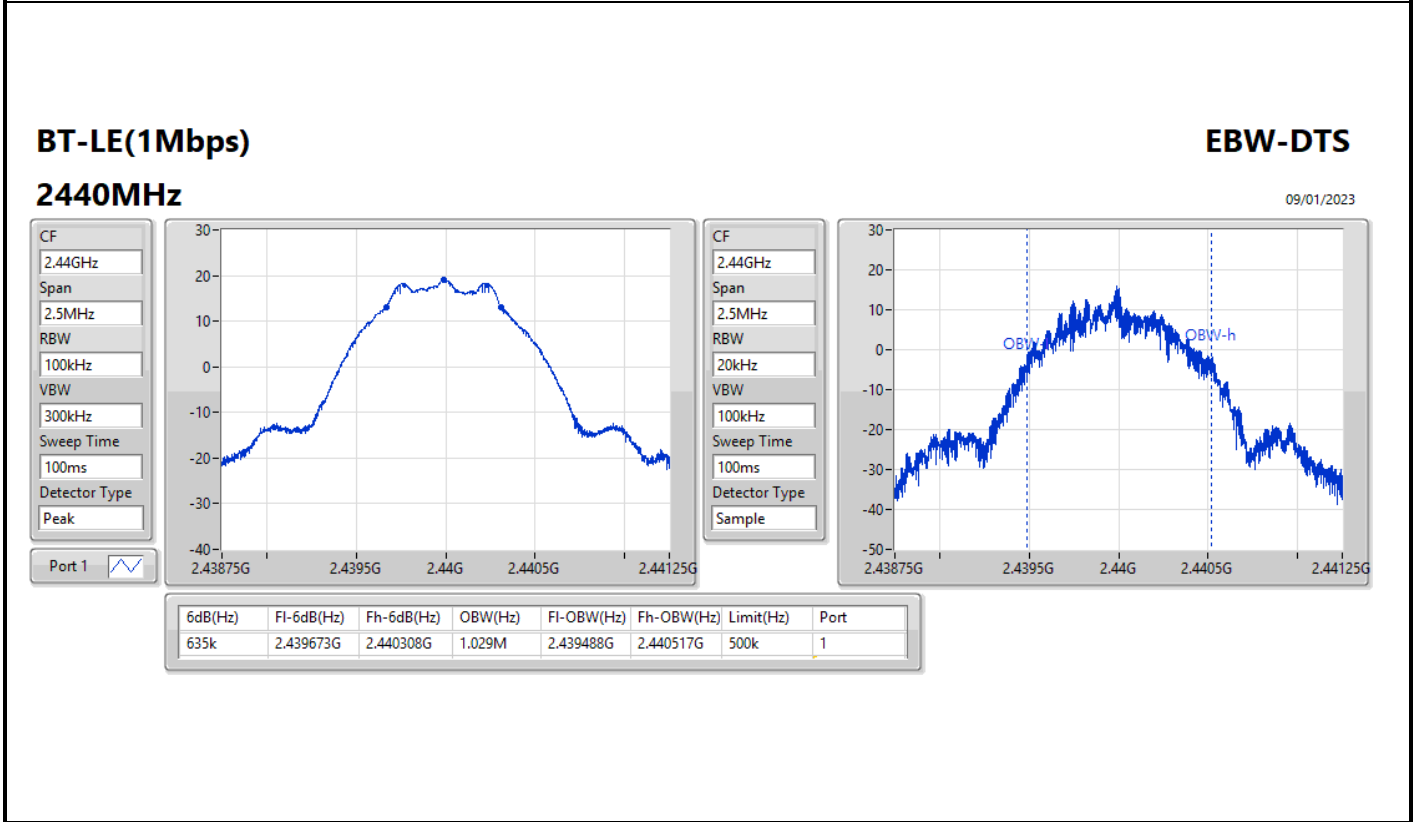
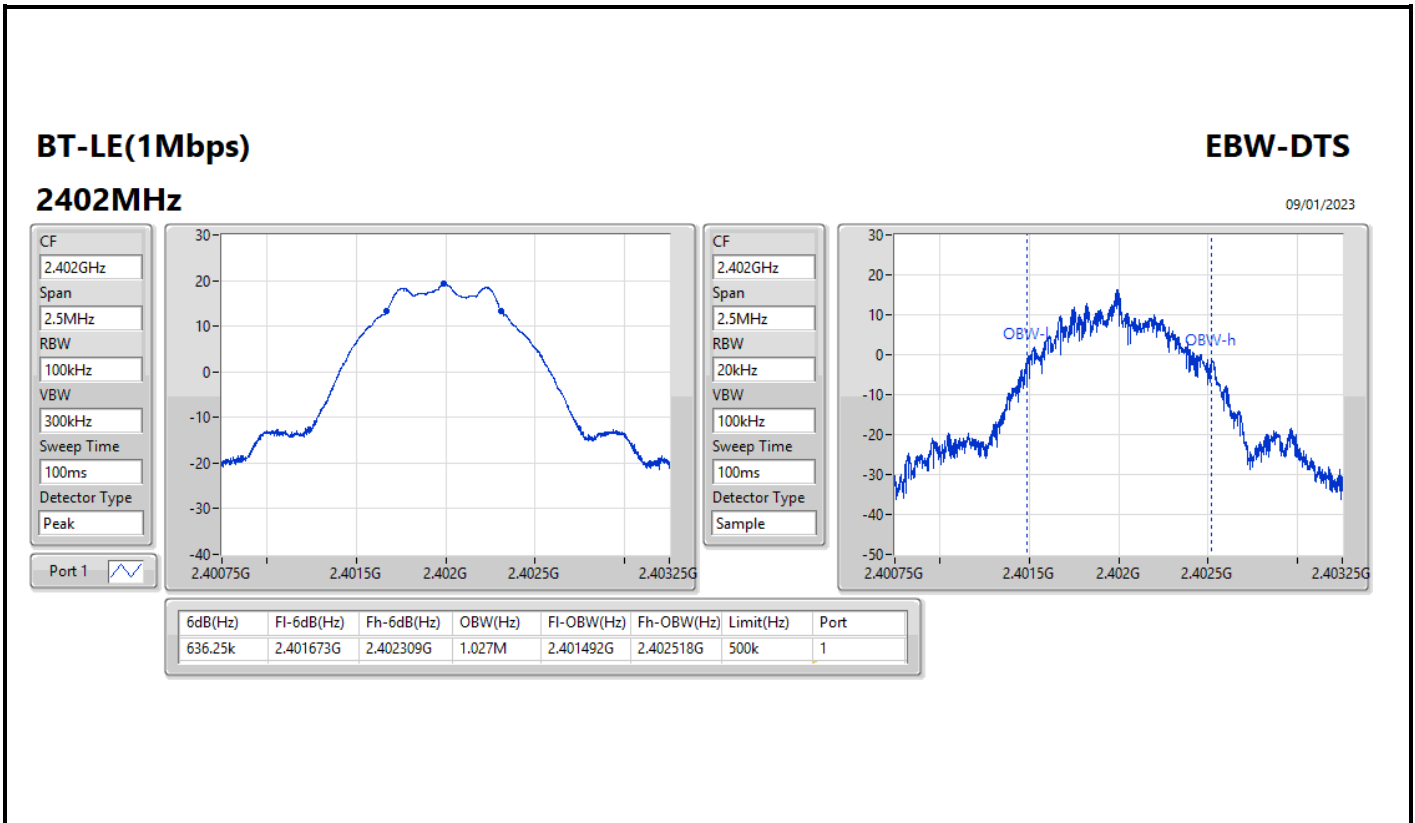
Max-N dB = Maximum 6dB down bandwidth; Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; Min-OBW = Minimum 99% occupied bandwidth

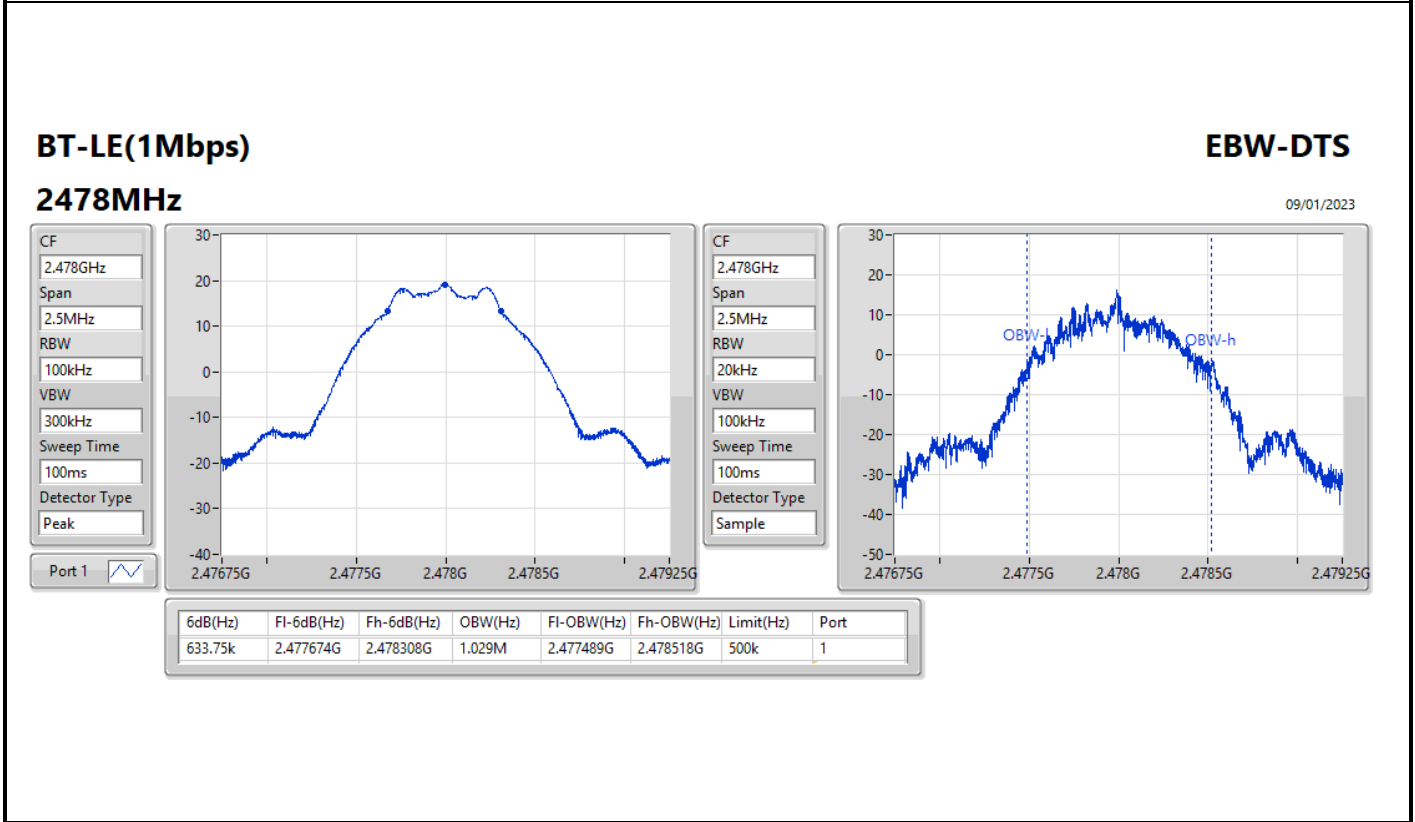
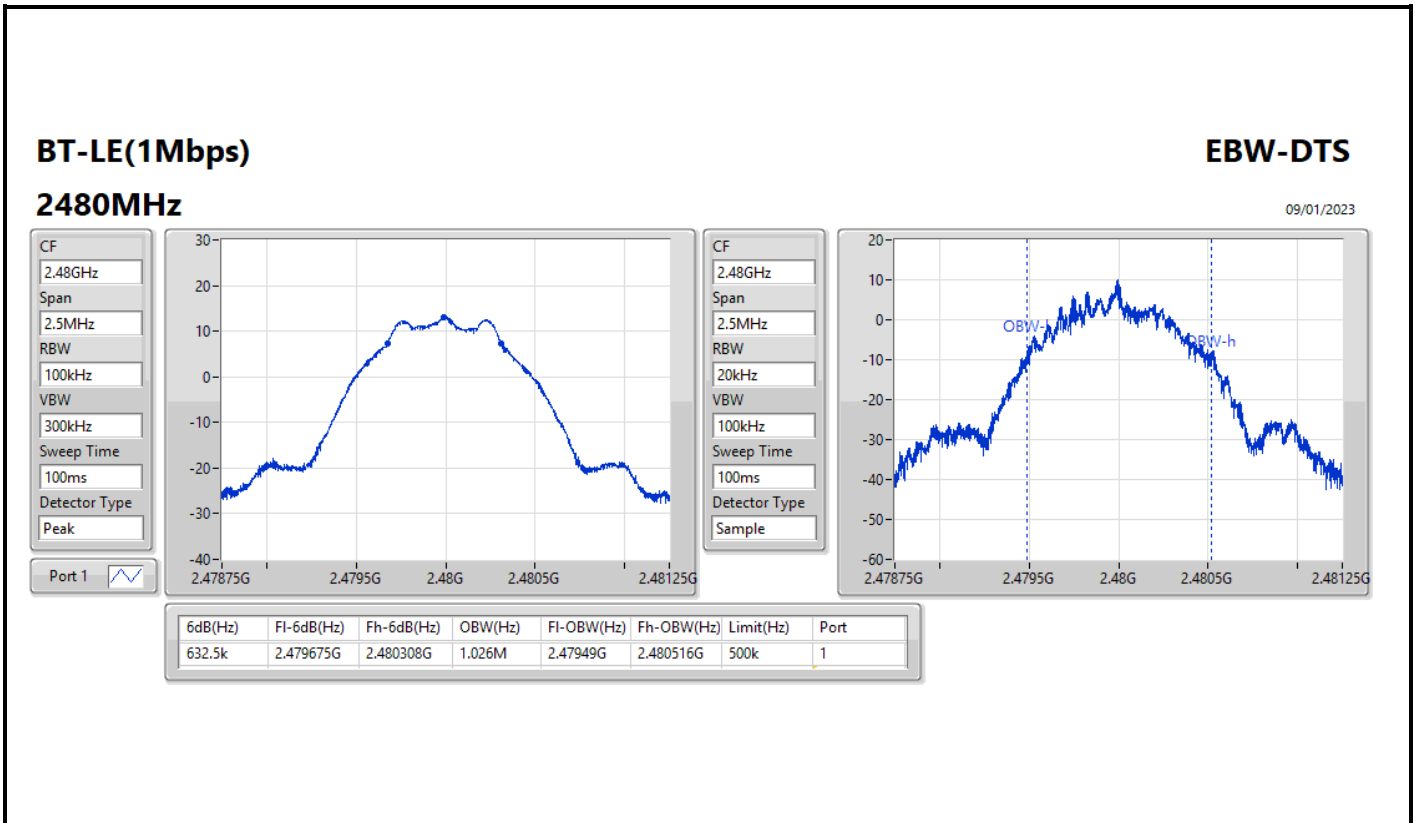


Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	636.25k	1.027M
2440MHz	Pass	500k	635k	1.029M
2480MHz	Pass	500k	632.5k	1.026M
2478MHz	Pass	500k	633.75k	1.029M

Port X-N dB = Port X 6dB down bandwidth:
Port X-OBW = Port X 99% occupied bandwidth







Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-LE(1Mbps)	636.25k	1.027M	1M03F1D	632.5k	1.027M

Max-N dB = Maximum 6dB down bandwidth; Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; Min-OBW = Minimum 99% occupied bandwidth



Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	635k	1.027M
2440MHz	Pass	500k	636.25k	1.027M
2480MHz	Pass	500k	632.5k	1.027M

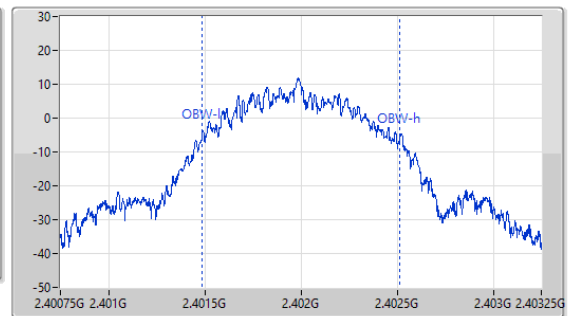
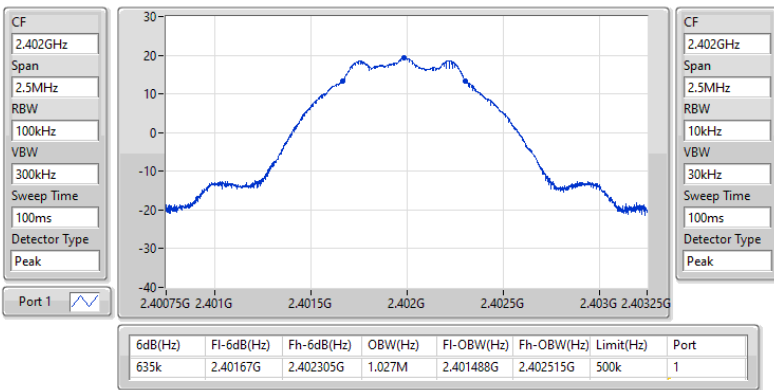
Port X-N dB = Port X 6dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth

2.4-2.4835GHz_BT-LE(1Mbps)

EBW-DTS

2402MHz

24/04/2023

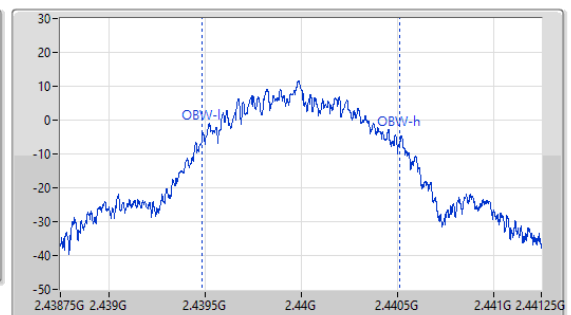
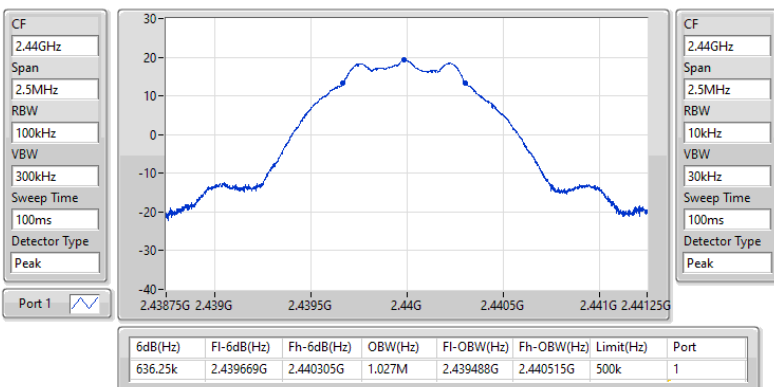


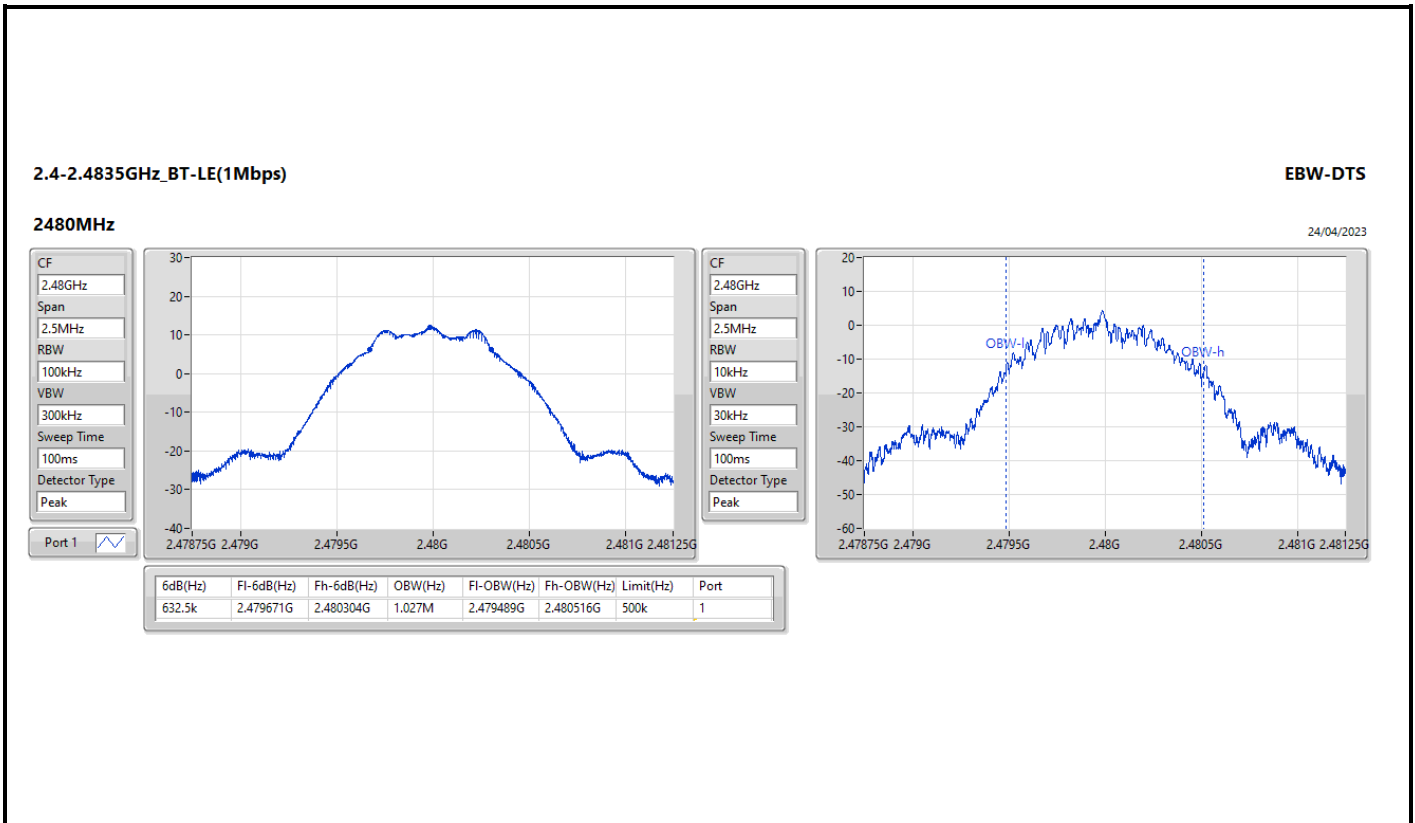
2.4-2.4835GHz_BT-LE(1Mbps)

EBW-DTS

2440MHz

24/04/2023







Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-LE(1Mbps)	635k	1.028M	1M03F1D	633.75k	1.022M

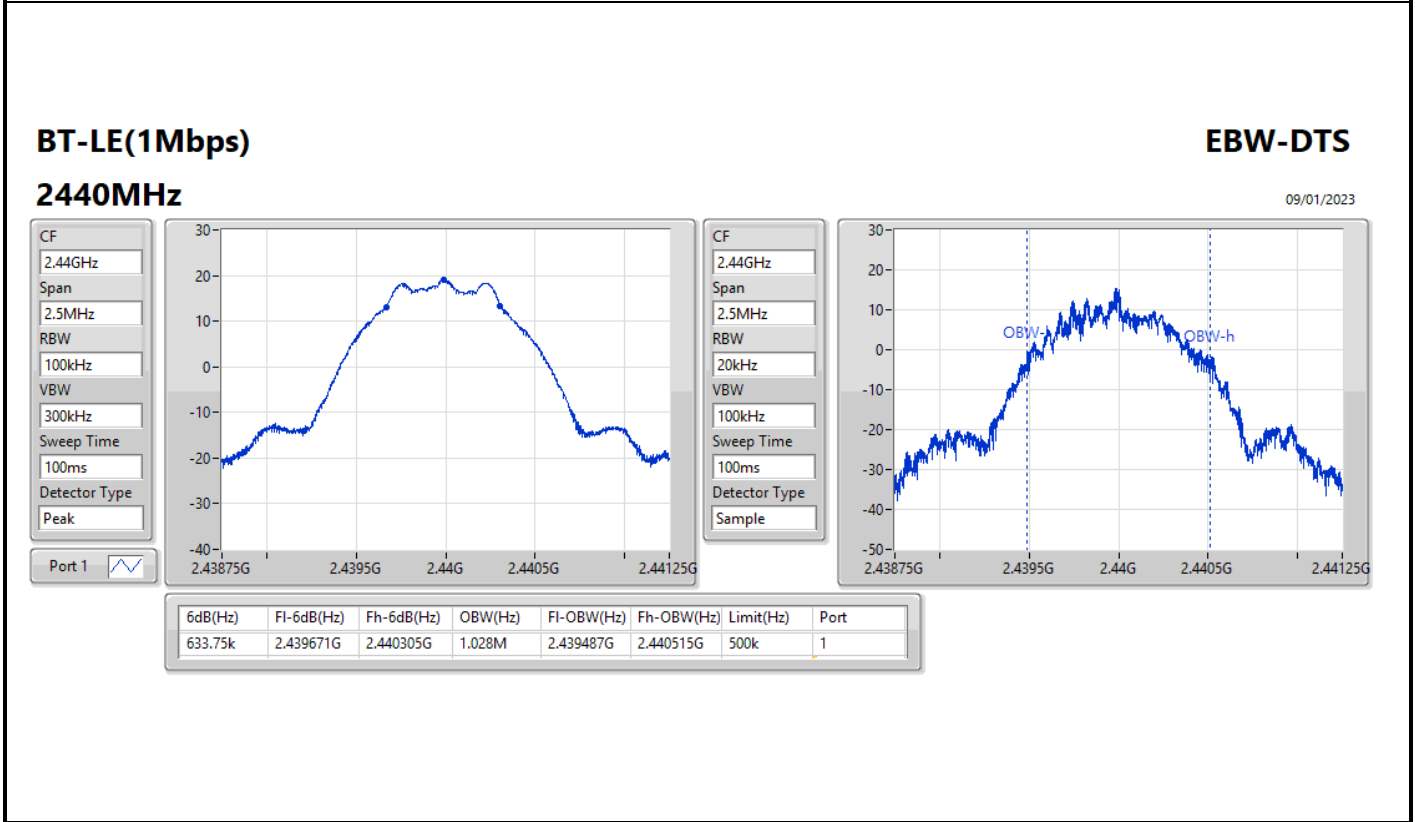
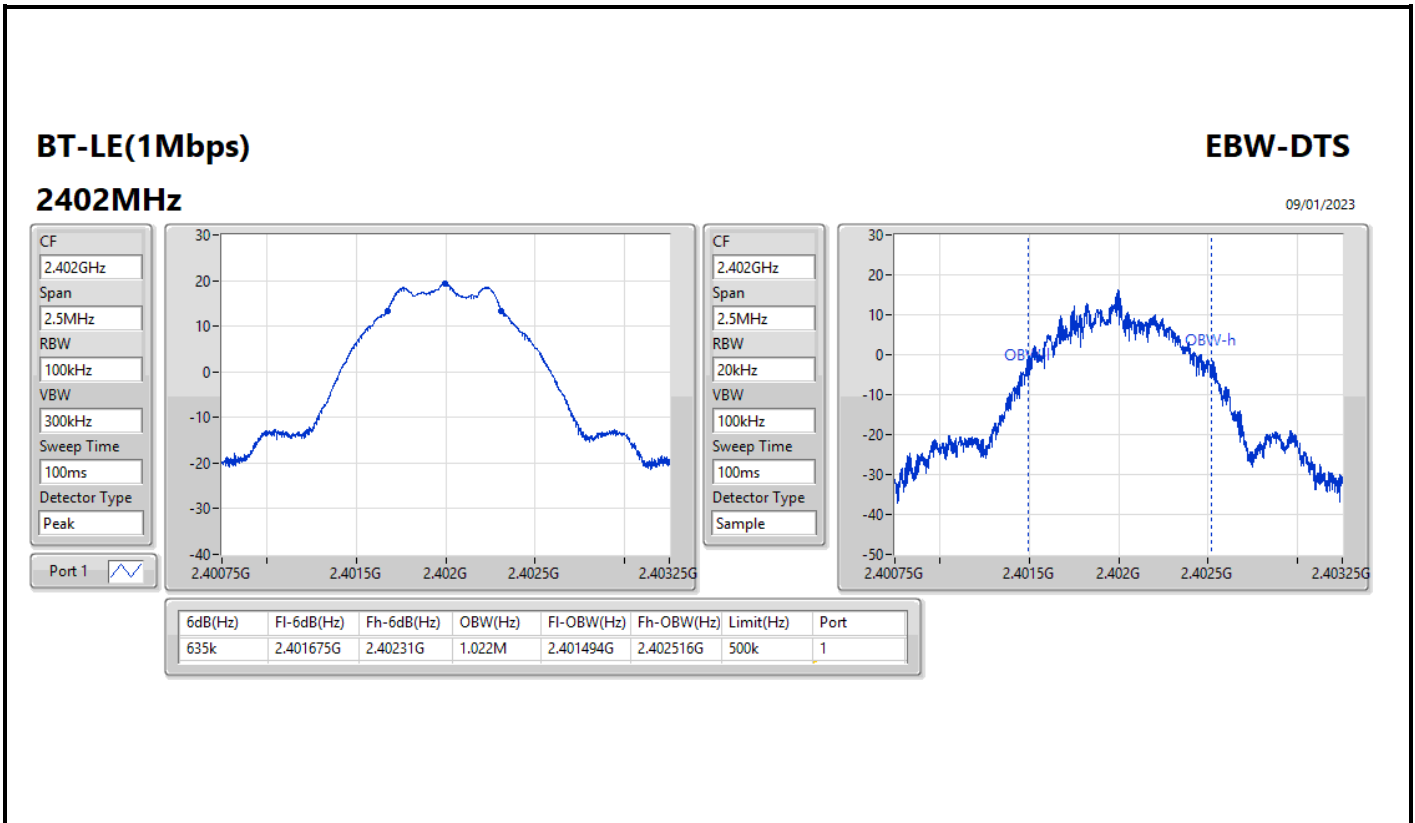
Max-N dB = Maximum 6dB down bandwidth; Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; Min-OBW = Minimum 99% occupied bandwidth

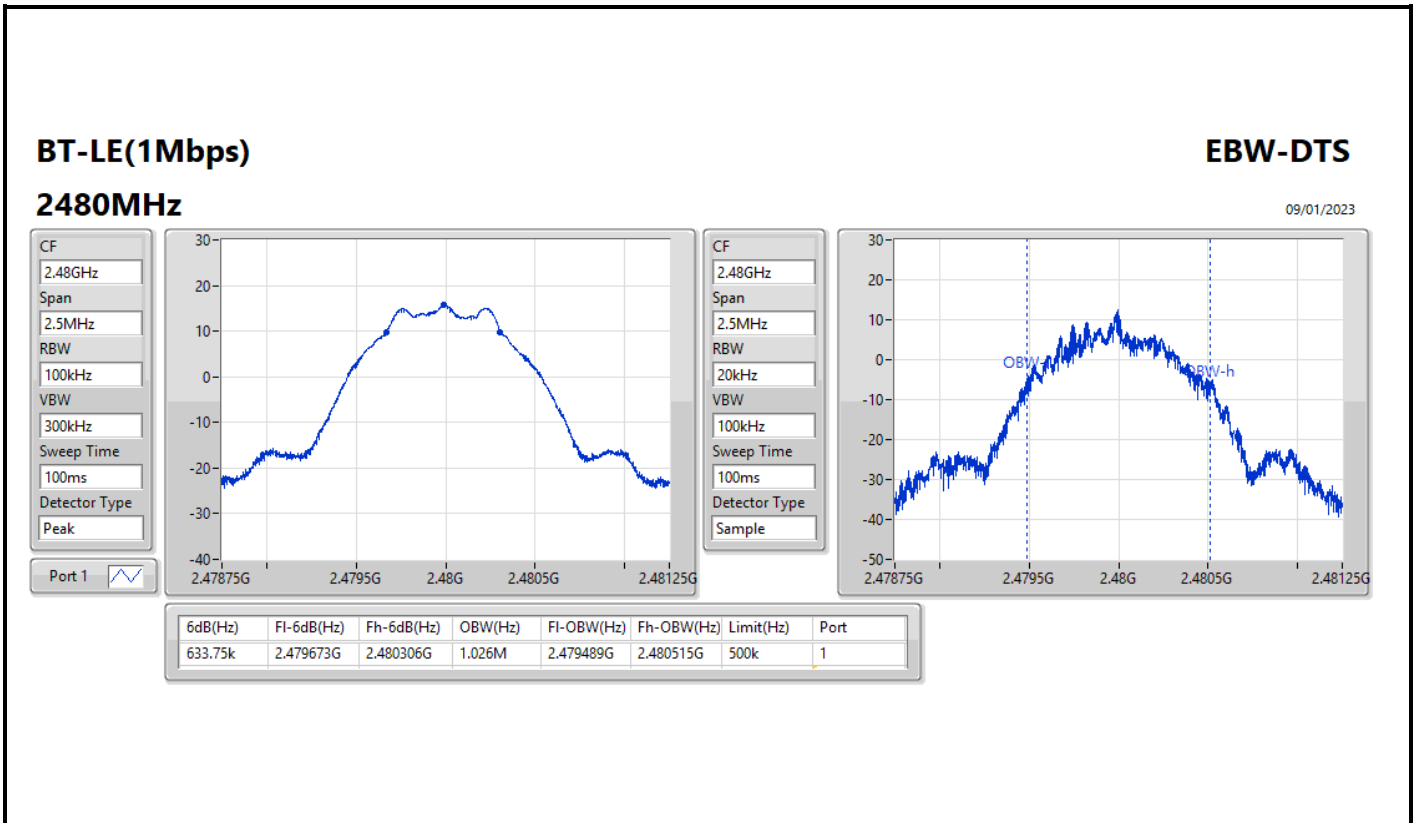


Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	635k	1.022M
2440MHz	Pass	500k	633.75k	1.028M
2480MHz	Pass	500k	633.75k	1.026M

Port X-N dB = Port X 6dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth







Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-LE(1Mbps)	635k	1.028M	1M03F1D	633.75k	1.023M

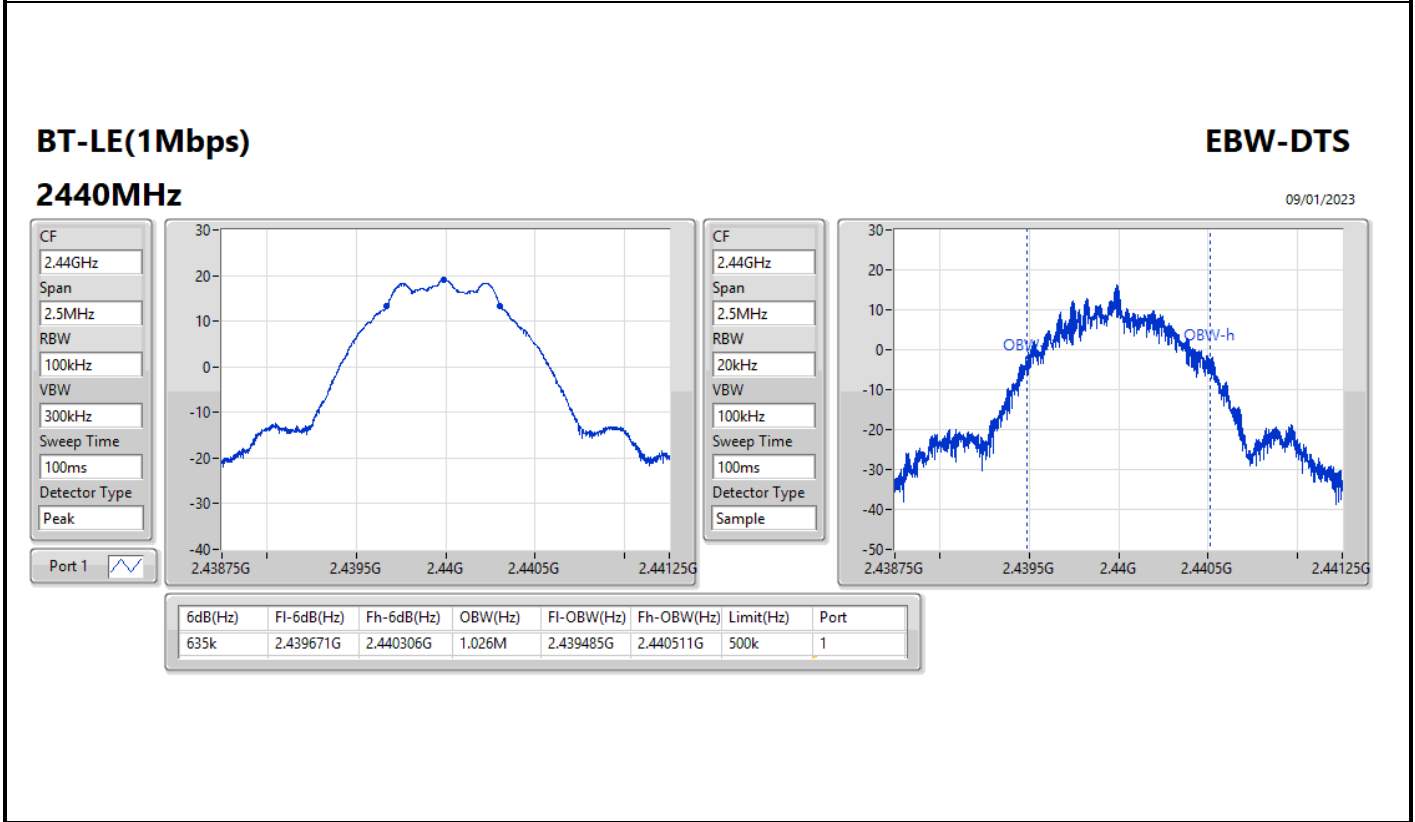
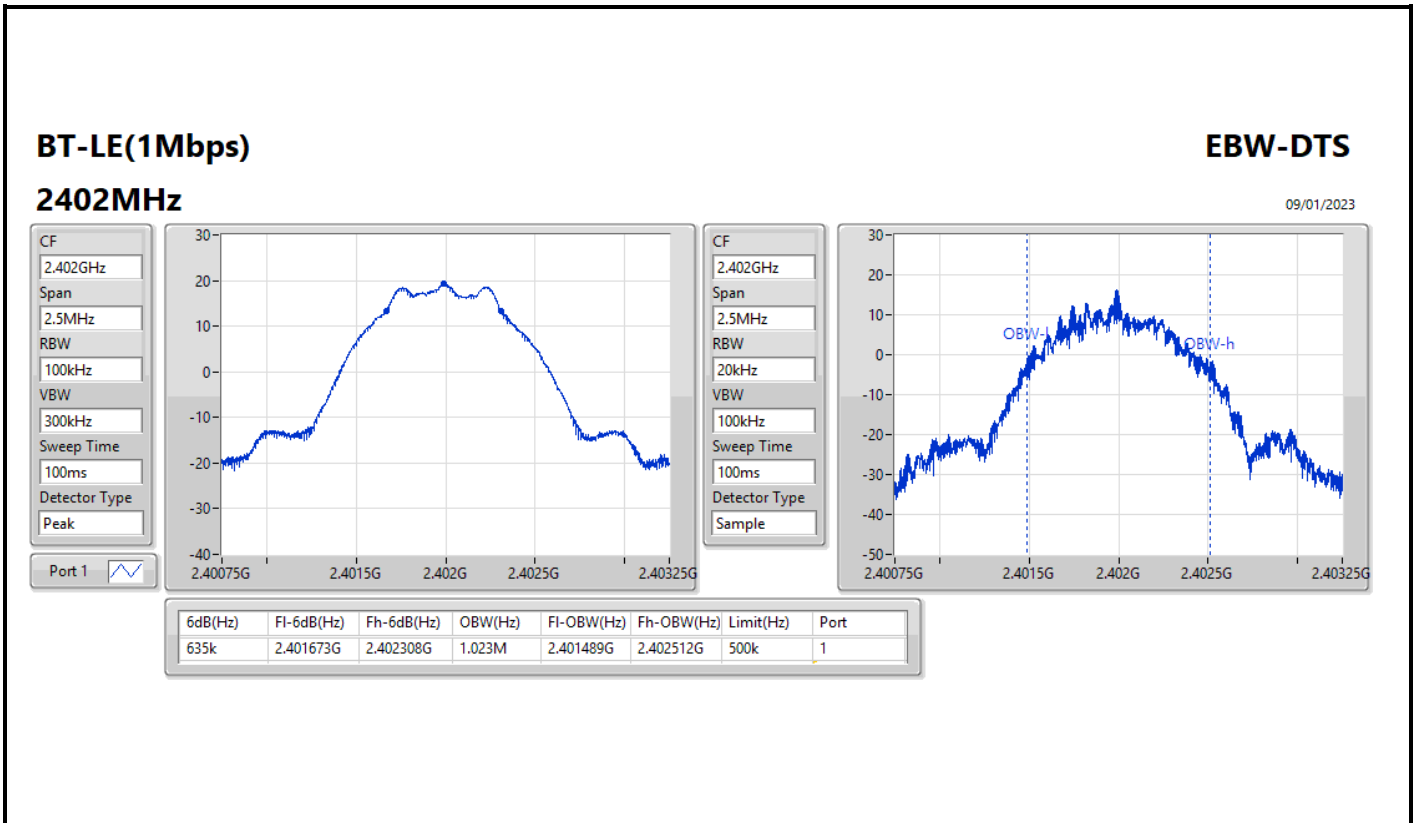
Max-N dB = Maximum 6dB down bandwidth; Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; Min-OBW = Minimum 99% occupied bandwidth

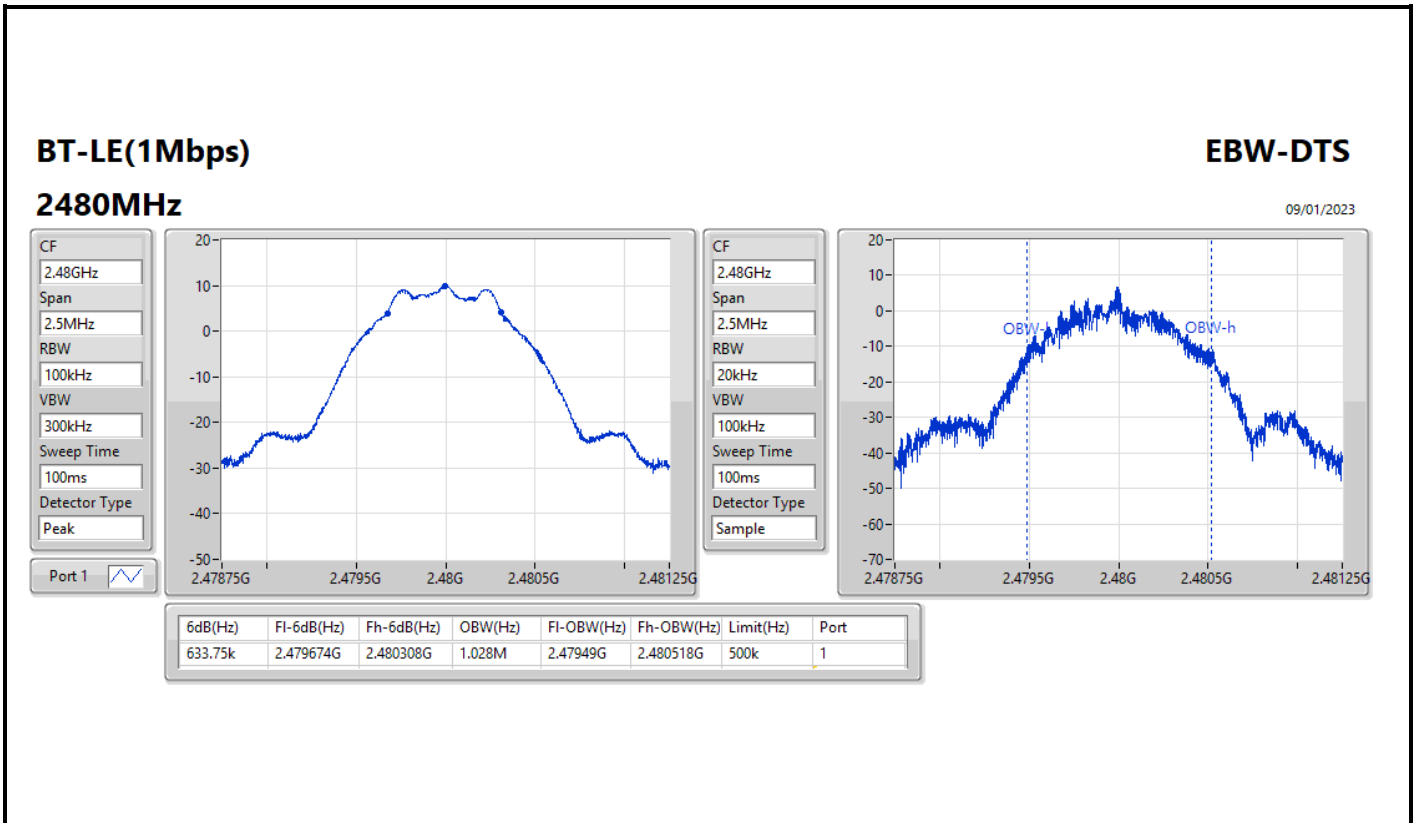


Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	635k	1.023M
2440MHz	Pass	500k	635k	1.026M
2480MHz	Pass	500k	633.75k	1.028M

Port X-N dB = Port X 6dB down bandwidth;
Port X-OBW = Port X 99% occupied bandwidth







Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
BT-LE(1Mbps)	635k	1.028M	1M03F1D	633.75k	1.024M

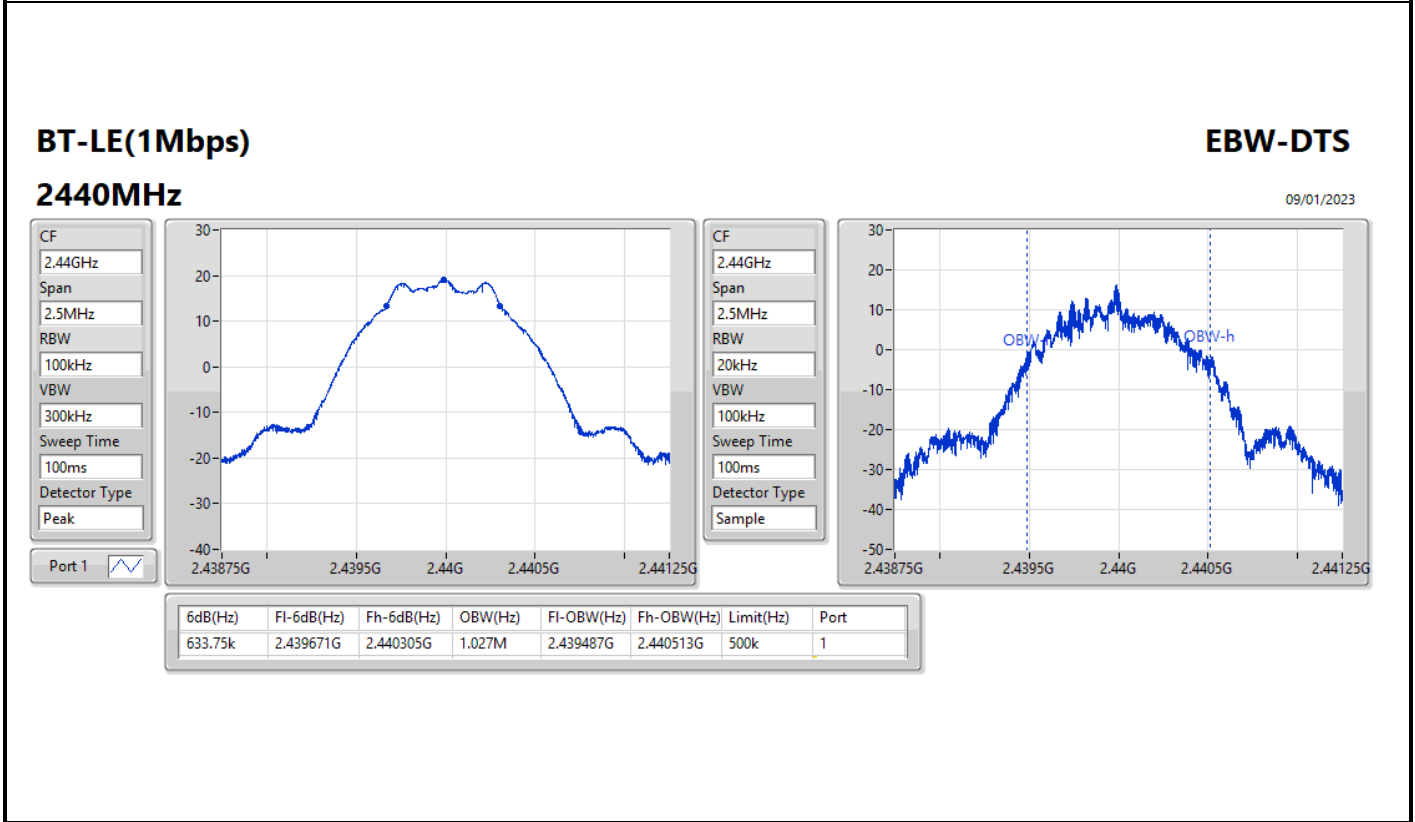
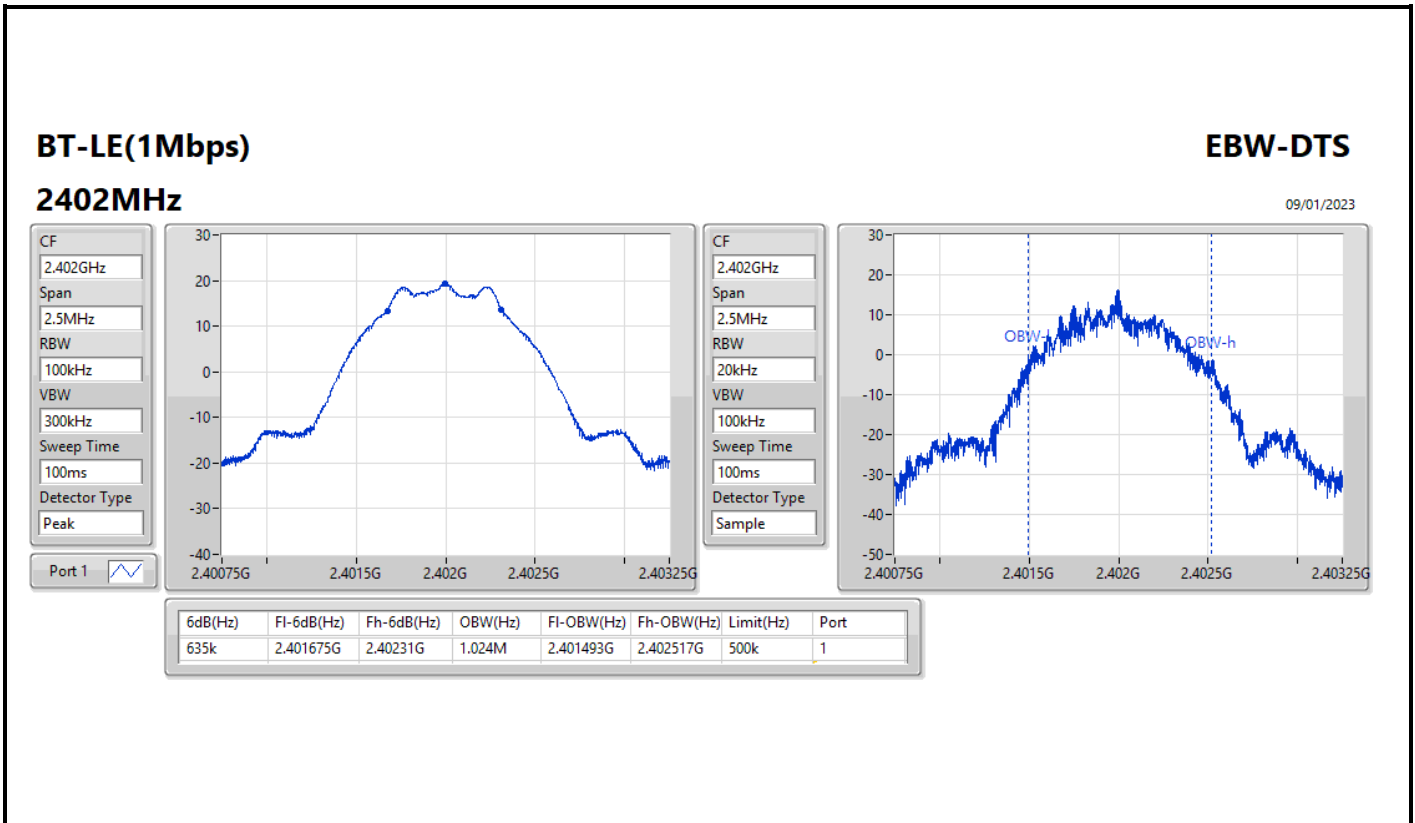
Max-N dB = Maximum 6dB down bandwidth; Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; Min-OBW = Minimum 99% occupied bandwidth

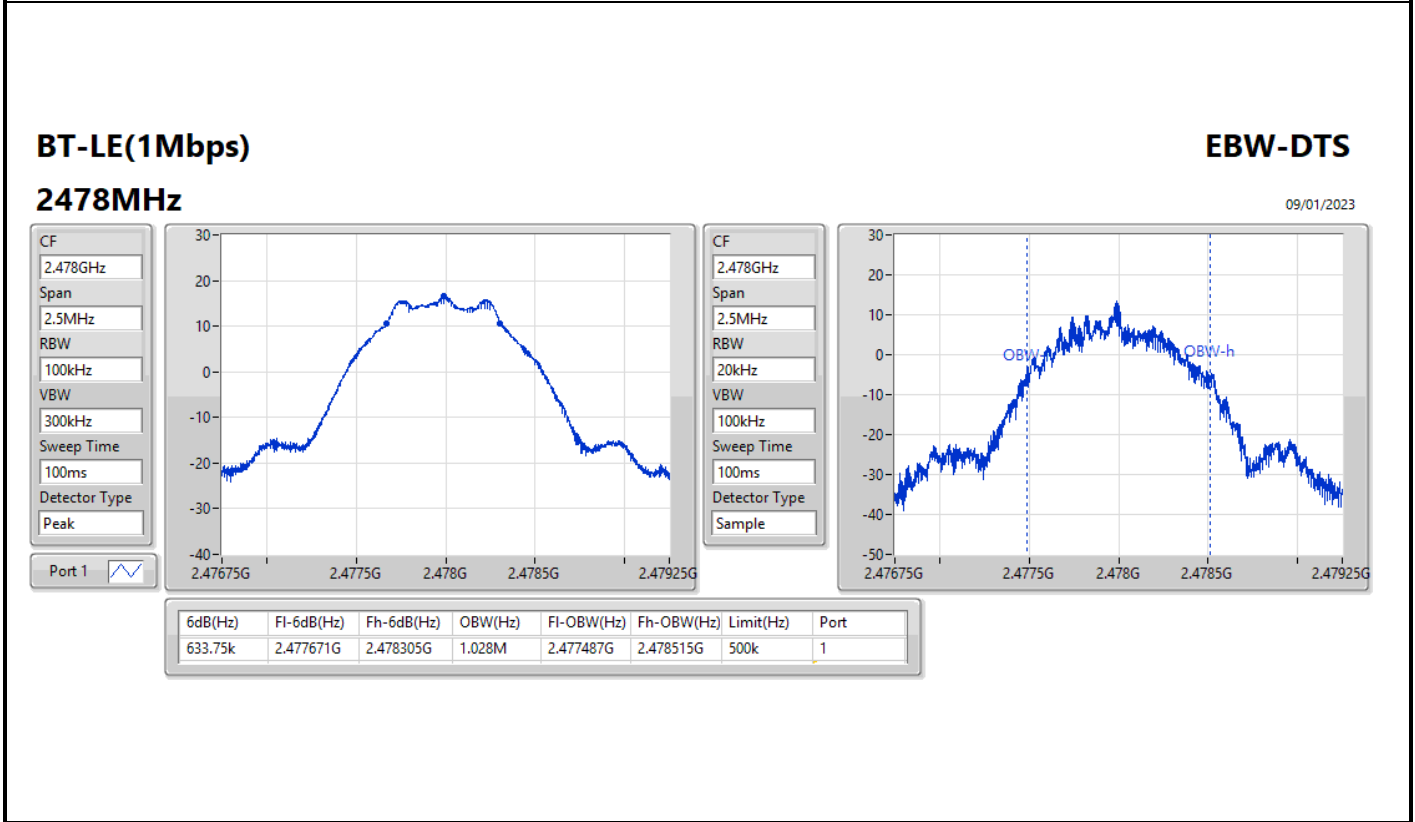
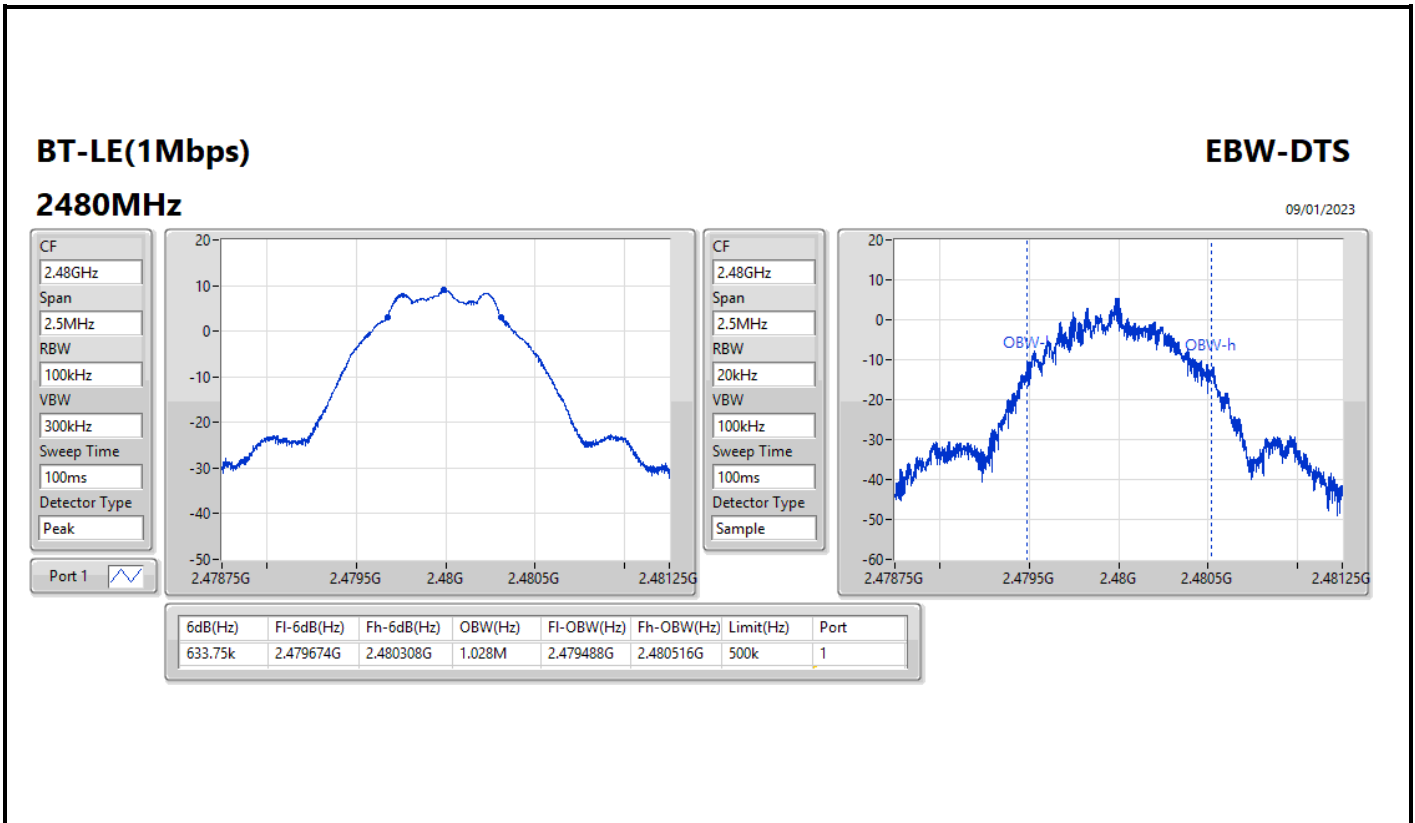


Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	500k	635k	1.024M
2440MHz	Pass	500k	633.75k	1.027M
2480MHz	Pass	500k	633.75k	1.028M
2478MHz	Pass	500k	633.75k	1.028M

Port X-N dB = Port X 6dB down bandwidth:
Port X-OBW = Port X 99% occupied bandwidth







Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	19.01	0.07962



Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	3.24	19.01	30.00
2440MHz	Pass	3.24	18.92	30.00
2478MHz	Pass	3.24	18.87	30.00
2480MHz	Pass	3.24	12.90	30.00

DG = Directional Gain; Port X = Port X output power



Summary

Mode	Total Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	19.12	0.08166



Result

Mode	Result	DG (dBi)	Total Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	4.34	19.05	30.00
2440MHz	Pass	4.34	19.12	30.00
2478MHz	Pass	4.34	18.27	30.00
2480MHz	Pass	4.34	12.06	30.00

DG = Directional Gain; Port X = Port X output power



Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	19.01	0.07962



Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	2.34	19.01	30.00
2440MHz	Pass	2.34	18.92	30.00
2478MHz	Pass	2.34	18.87	30.00
2480MHz	Pass	2.34	15.44	30.00

DG = Directional Gain; Port X = Port X output power



Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	19.01	0.07962



Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	6.44	19.01	29.56
2440MHz	Pass	6.44	18.92	29.56
2478MHz	Pass	6.44	16.18	29.56
2480MHz	Pass	6.44	9.22	29.56

DG = Directional Gain; Port X = Port X output power



Summary

Mode	Power (dBm)	Power (W)
2.4-2.4835GHz	-	-
BT-LE(1Mbps)	19.01	0.07962



Result

Mode	Result	Gain (dBi)	Power (dBm)	Power Limit (dBm)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	10.64	19.01	25.36
2440MHz	Pass	10.64	18.92	25.36
2478MHz	Pass	10.64	16.18	25.36
2480MHz	Pass	10.64	8.67	25.36

DG = Directional Gain; Port X = Port X output power



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	4.07

RBW = 3kHz;



Result

Mode	Result	Gain (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	3.24	4.07	8.00
2440MHz	Pass	3.24	3.83	8.00
2480MHz	Pass	3.24	-2.16	8.00
2478MHz	Pass	3.24	3.90	8.00

DG = Directional Gain; RBW = 3kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

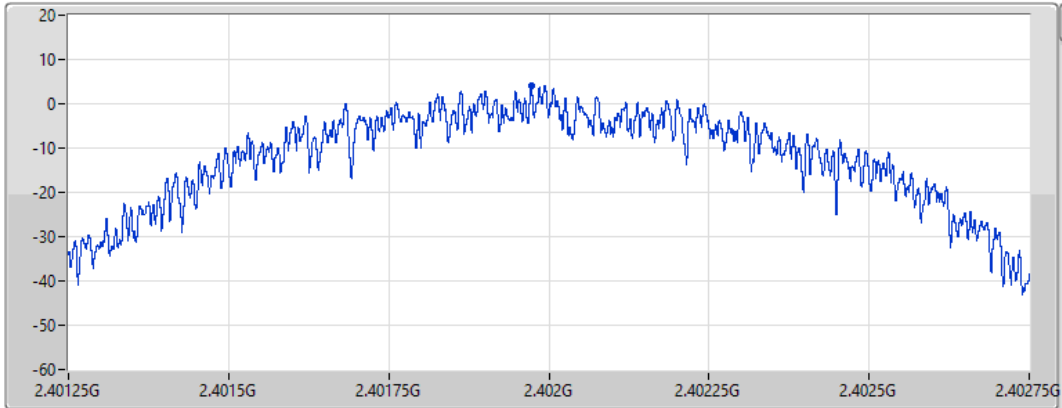
BT-LE(1Mbps)


PSD

2402MHz

09/01/2023

CF
2.402GHz
Span
1.5MHz
RBW
3kHz
VBW
10kHz
Sweep Time
632.18121us
Detector Type
Peak



Port 1 

Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.07	4.07	4.07

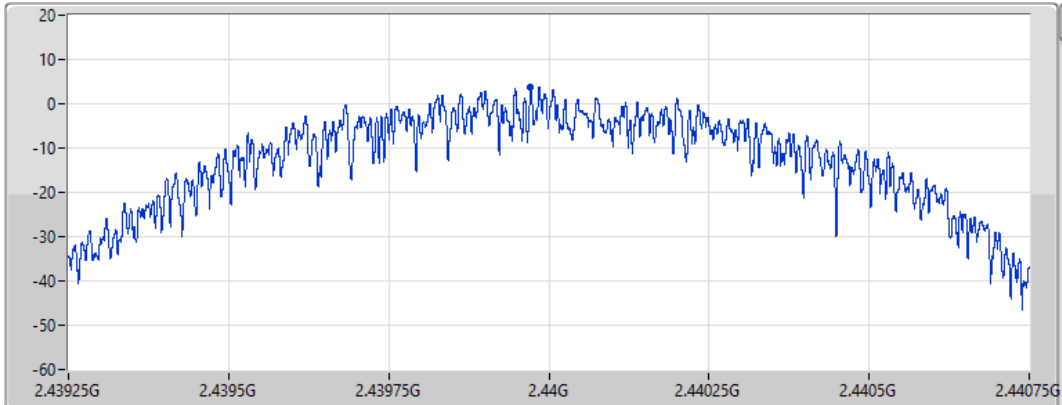
BT-LE(1Mbps)


PSD

2440MHz

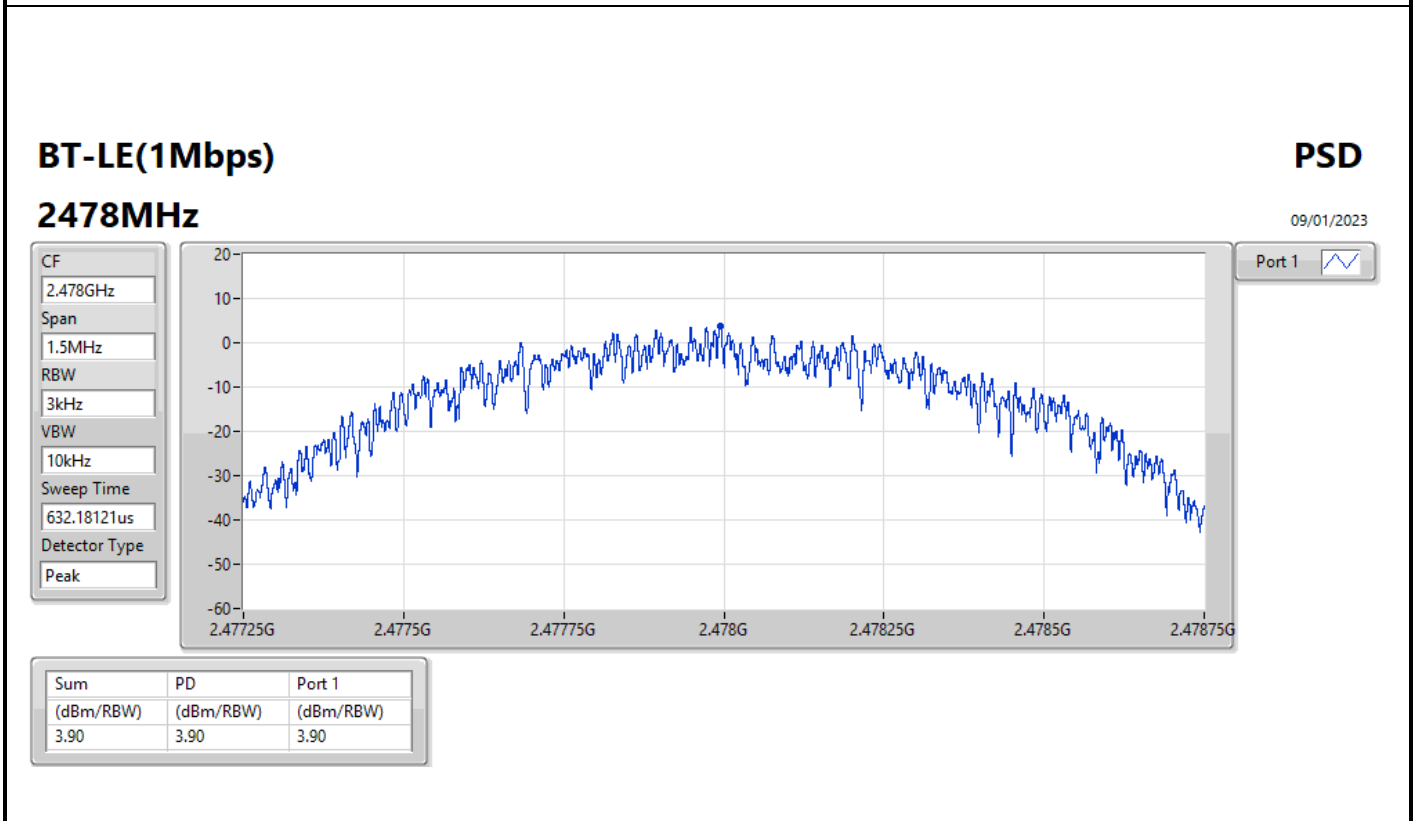
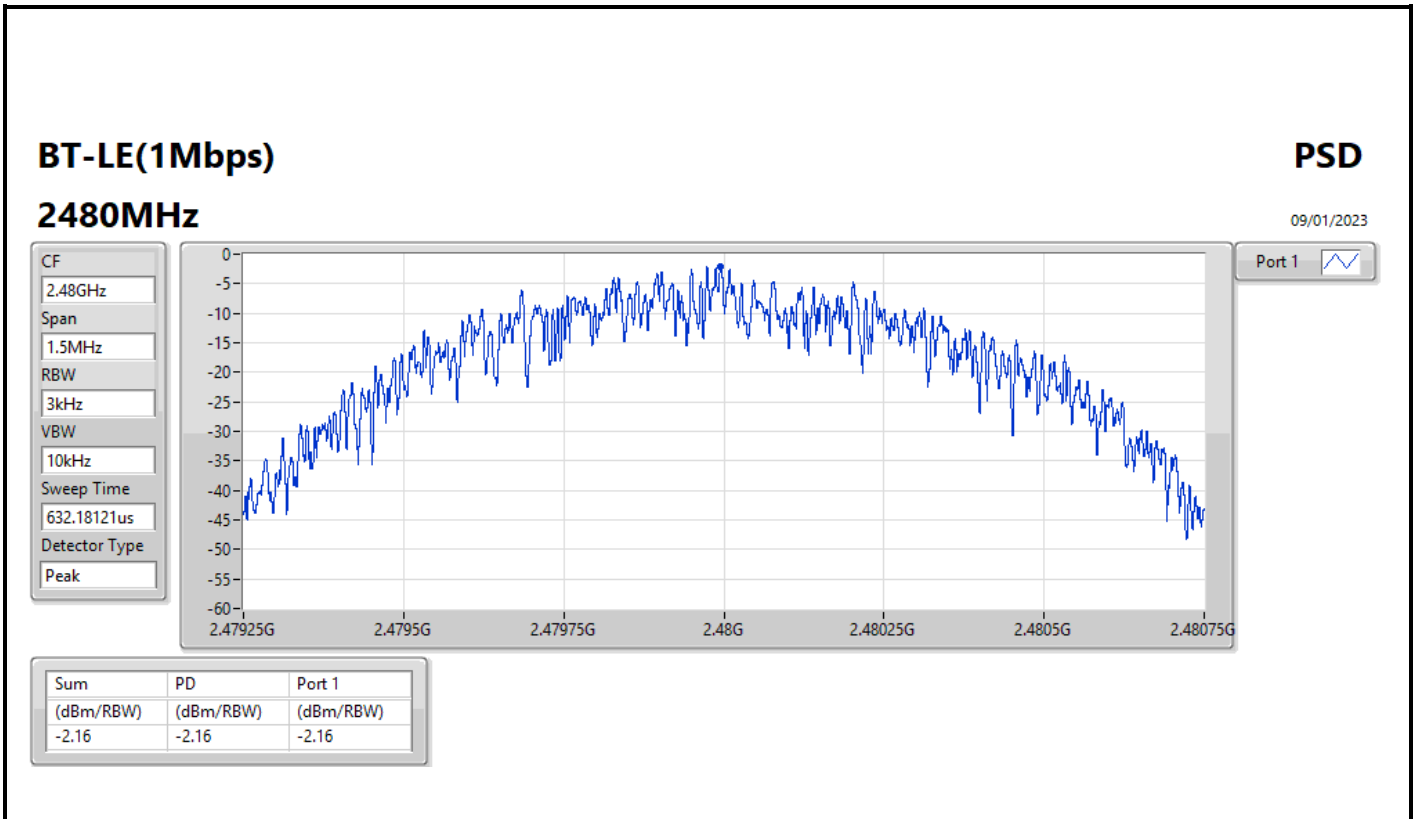
09/01/2023

CF
2.44GHz
Span
1.5MHz
RBW
3kHz
VBW
10kHz
Sweep Time
632.18121us
Detector Type
Peak



Port 1 

Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.83	3.83	3.83





Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	4.15

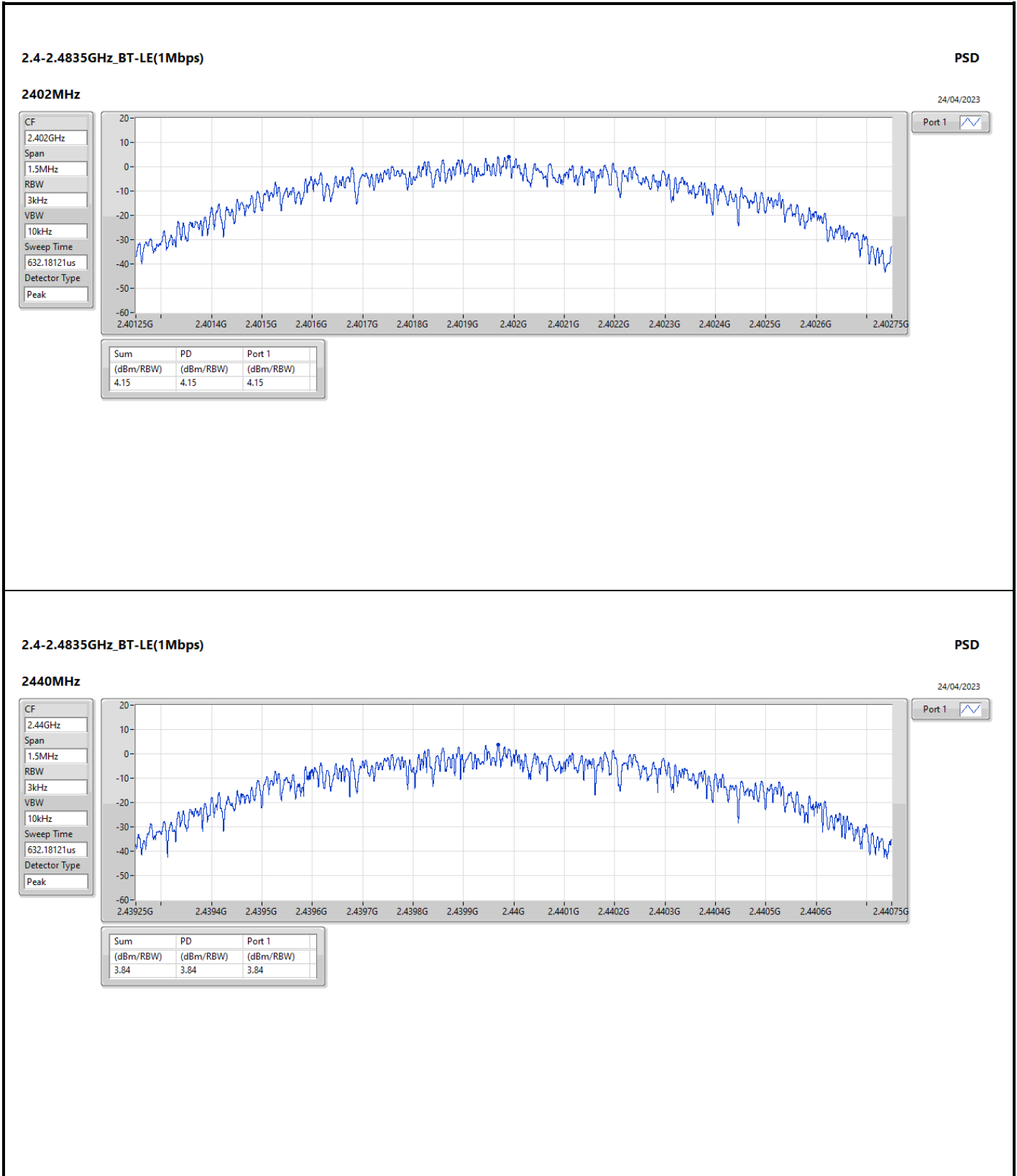
RBW = 3kHz;

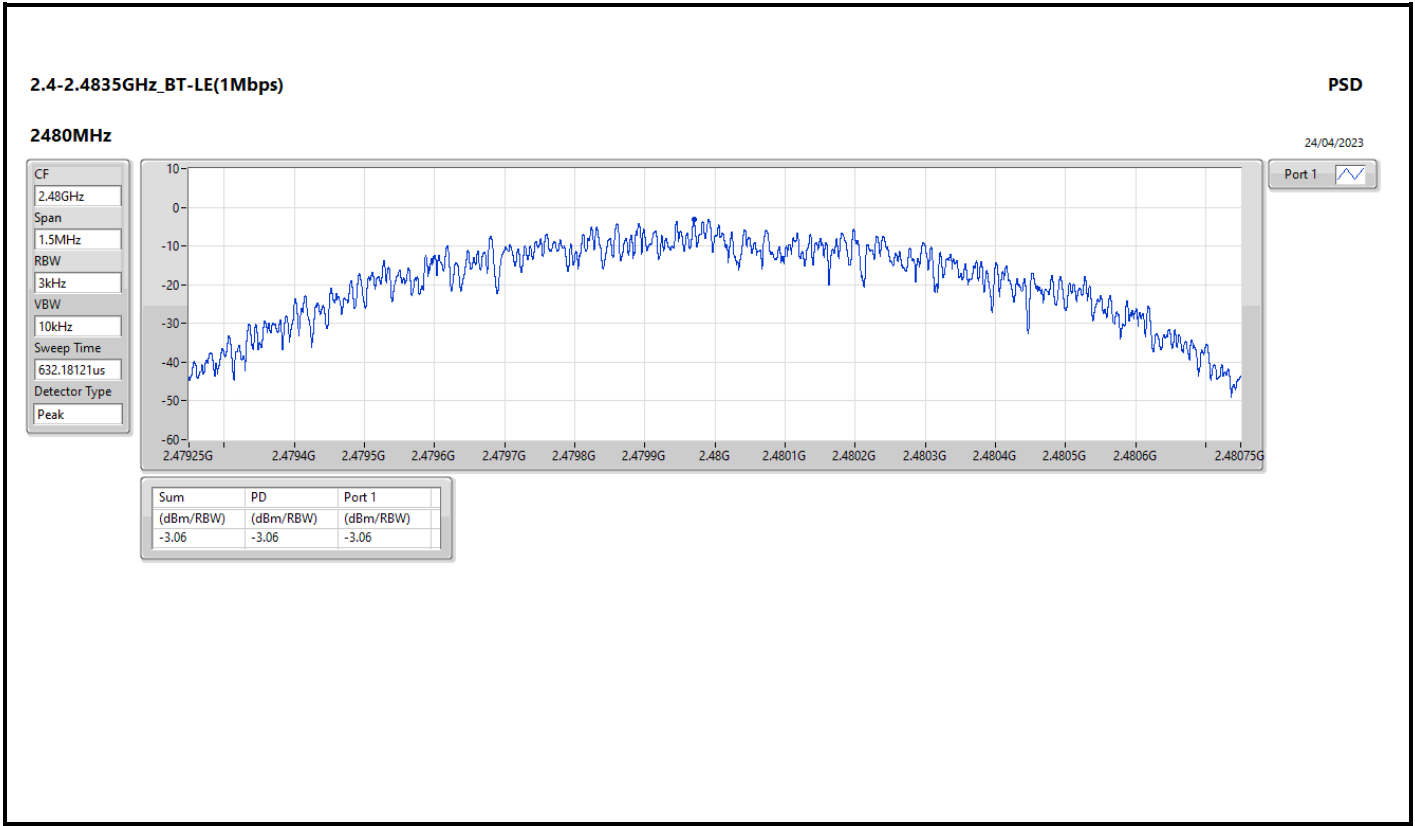


Result

Mode	Result	DG (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	4.34	4.15	8.00
2440MHz	Pass	4.34	3.84	8.00
2480MHz	Pass	4.34	-3.06	8.00

DG = Directional Gain; RBW = 3kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;







Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	4.03

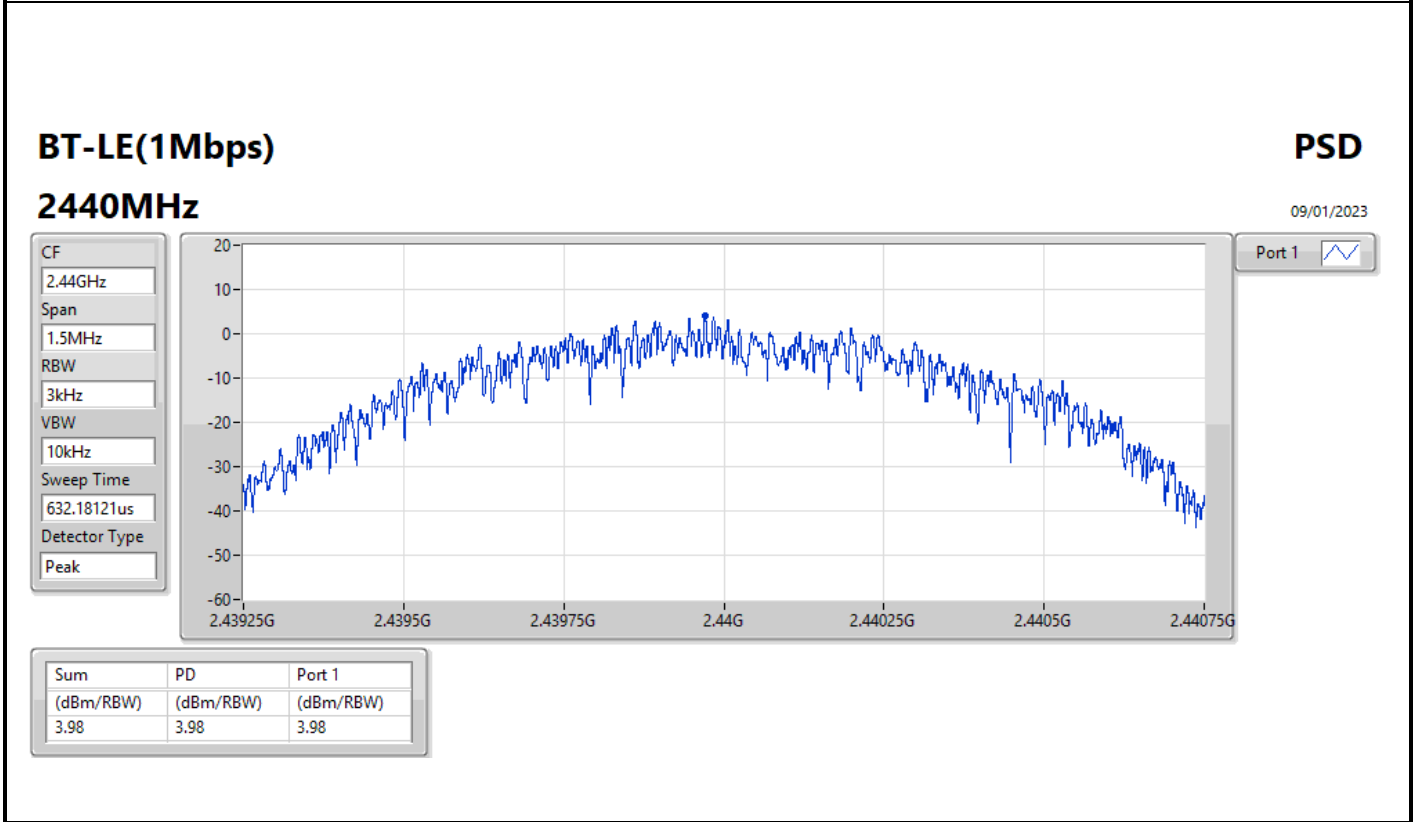
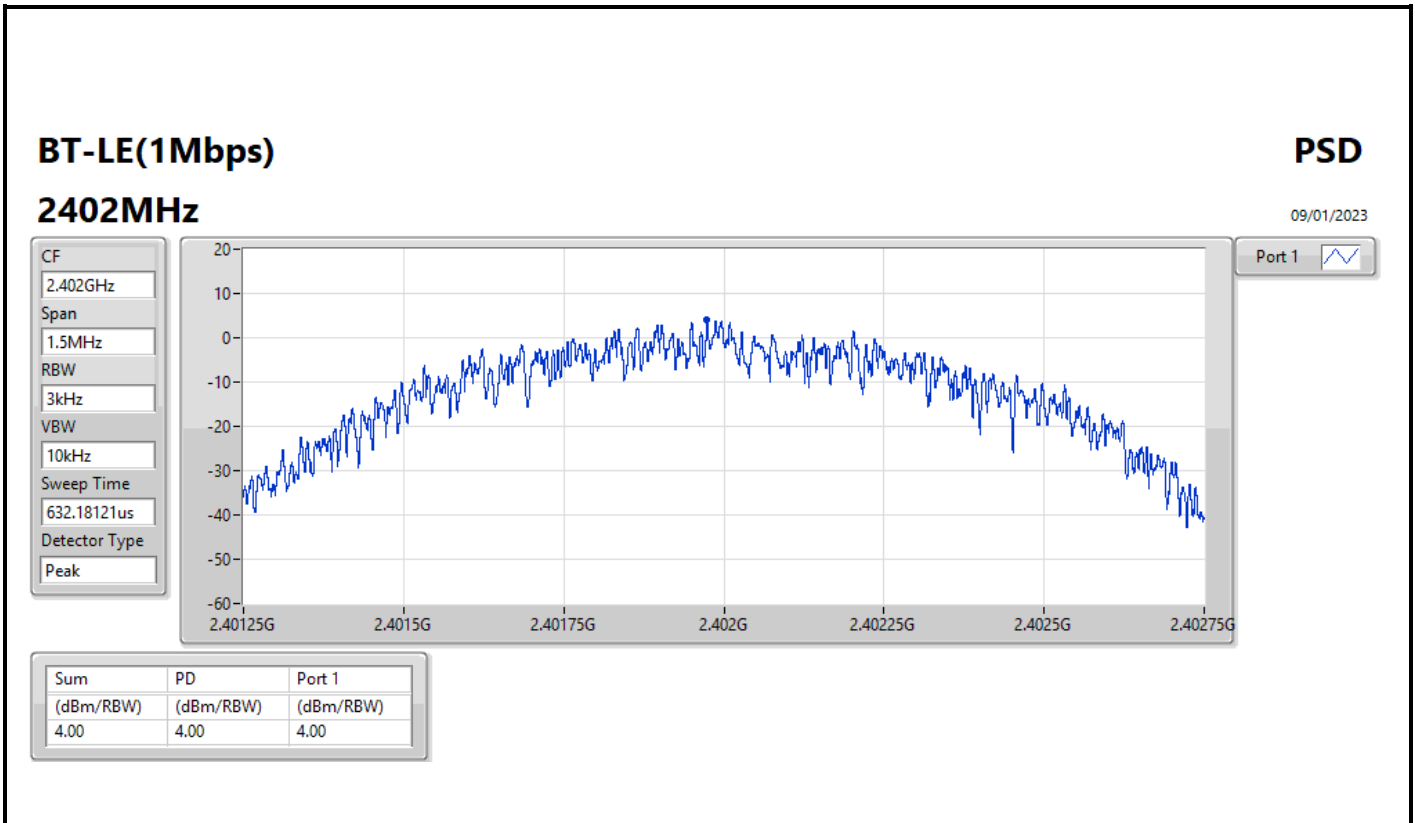
RBW = 3kHz;

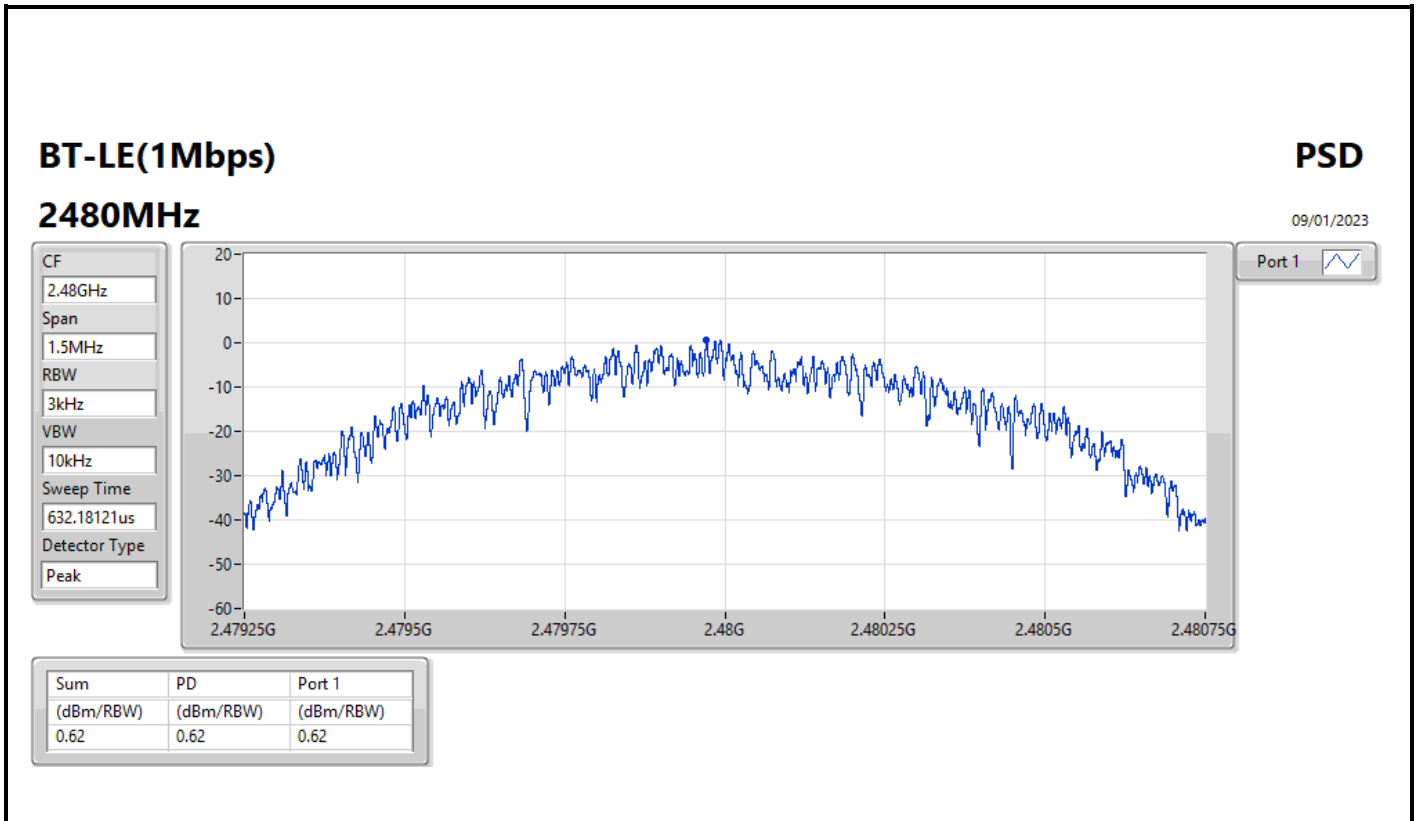


Result

Mode	Result	Gain (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	2.34	4.00	8.00
2440MHz	Pass	2.34	3.98	8.00
2480MHz	Pass	2.34	0.62	8.00

DG = Directional Gain; RBW = 3kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;







Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	4.14

RBW = 3kHz;



Result

Mode	Result	Gain (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	6.44	4.14	7.56
2440MHz	Pass	6.44	3.99	7.56
2480MHz	Pass	6.44	-5.26	7.56

DG = Directional Gain; RBW = 3kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

BT-LE(1Mbps)

PSD

2402MHz

09/01/2023

CF
2.402GHz

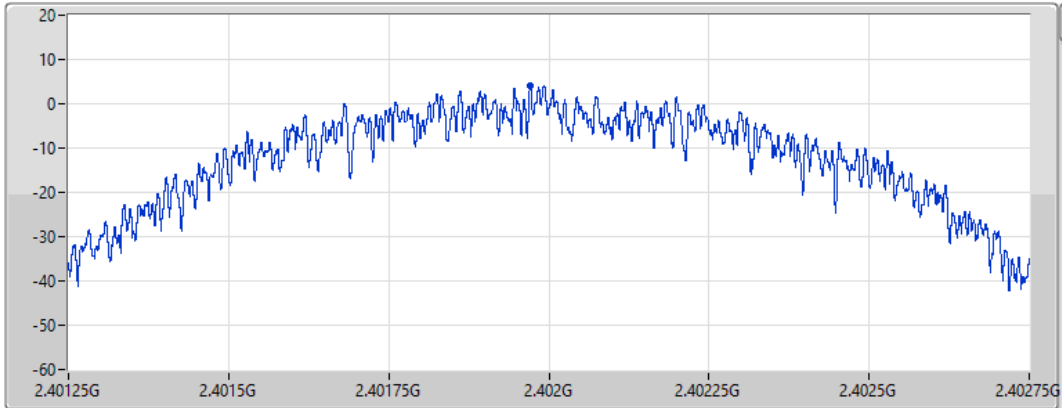
Span
1.5MHz


RBW
3kHz

VBW
10kHz

Sweep Time
632.18121us

Detector Type
Peak



Port 1 

Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.14	4.14	4.14

BT-LE(1Mbps)

PSD

2440MHz

09/01/2023

CF
2.44GHz

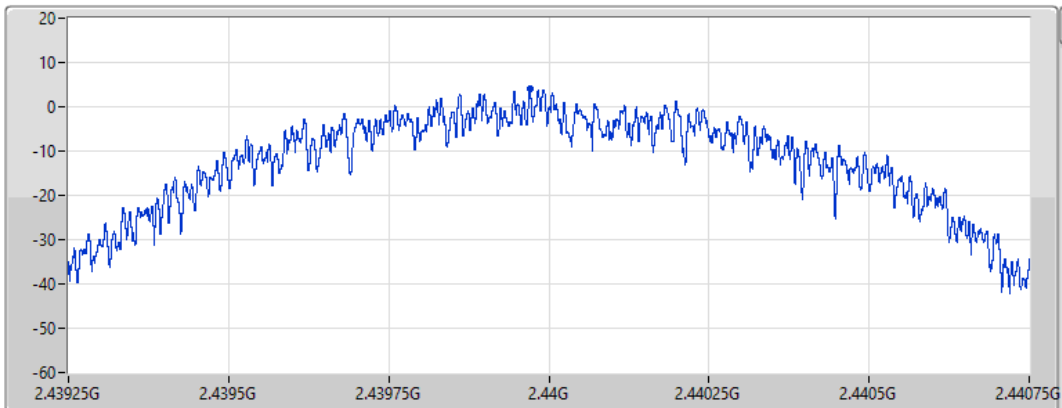
Span
1.5MHz


RBW
3kHz

VBW
10kHz

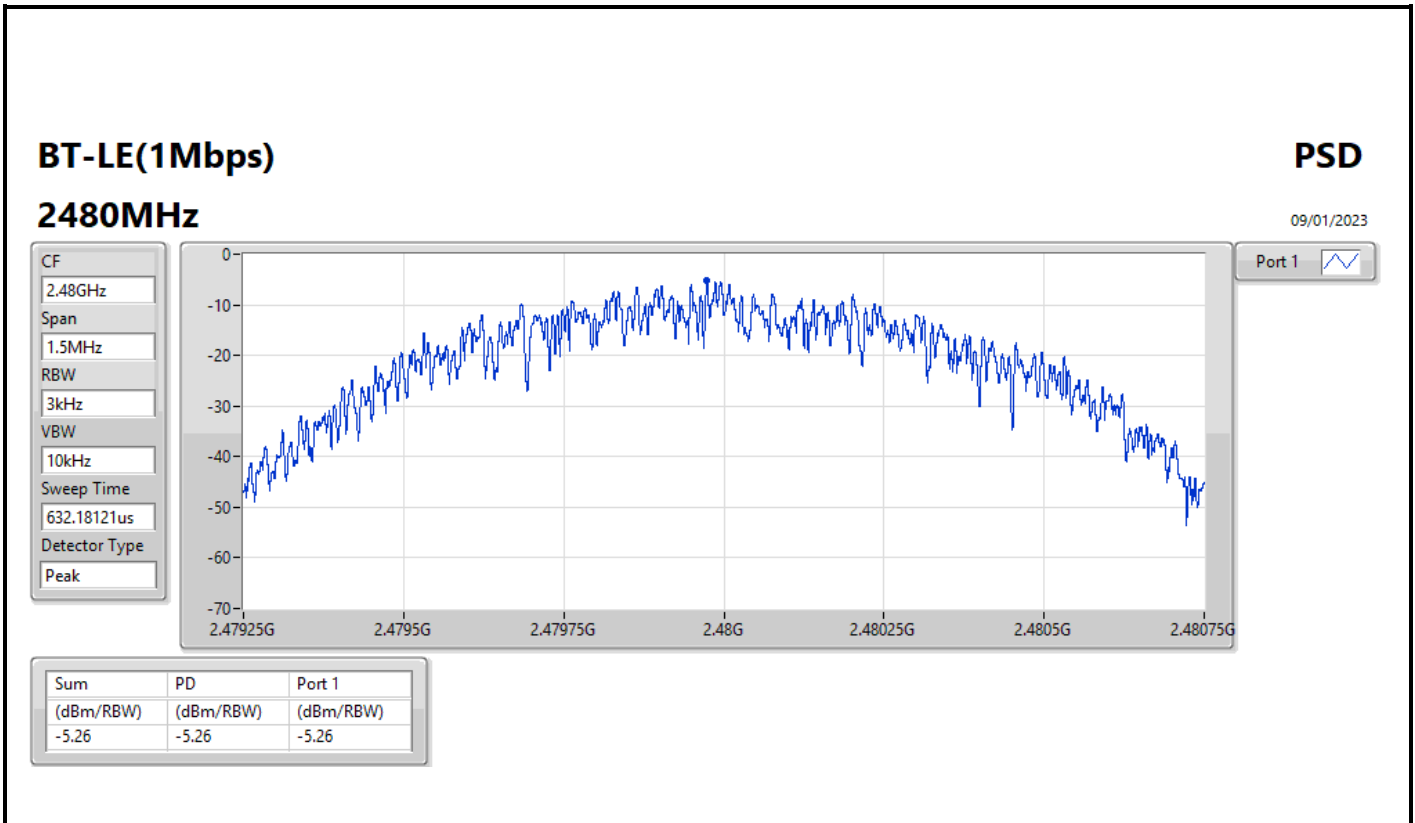
Sweep Time
632.18121us

Detector Type
Peak



Port 1 

Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.99	3.99	3.99





Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
BT-LE(1Mbps)	3.26

RBW = 3kHz;



Result

Mode	Result	Gain (dBi)	PD (dBm/RBW)	PD Limit (dBm/RBW)
BT-LE(1Mbps)	-	-	-	-
2402MHz	Pass	10.64	3.26	3.36
2440MHz	Pass	10.64	3.08	3.36
2480MHz	Pass	10.64	-6.27	3.36
2478MHz	Pass	10.64	1.29	3.36

DG = Directional Gain; RBW = 3kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

BT-LE(1Mbps)

PSD

2402MHz

09/01/2023

CF
2.402GHz

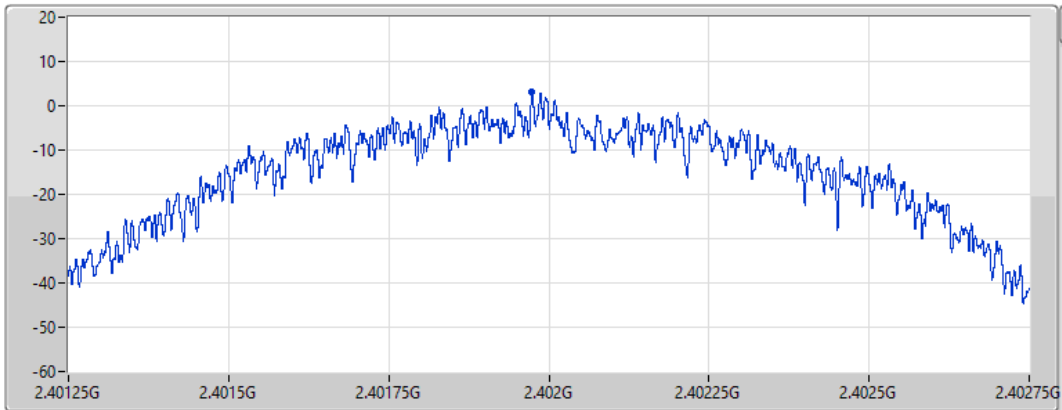
Span
1.5MHz


RBW
3kHz

VBW
10kHz

Sweep Time
632.18121us

Detector Type
RMS



Port 1 

Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.26	3.26	3.26

BT-LE(1Mbps)

PSD

2440MHz

09/01/2023

CF
2.44GHz

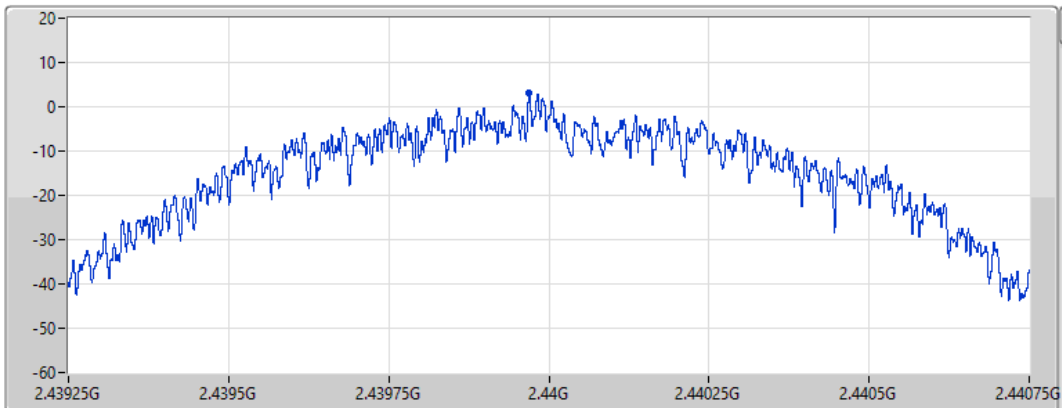
Span
1.5MHz


RBW
3kHz

VBW
10kHz

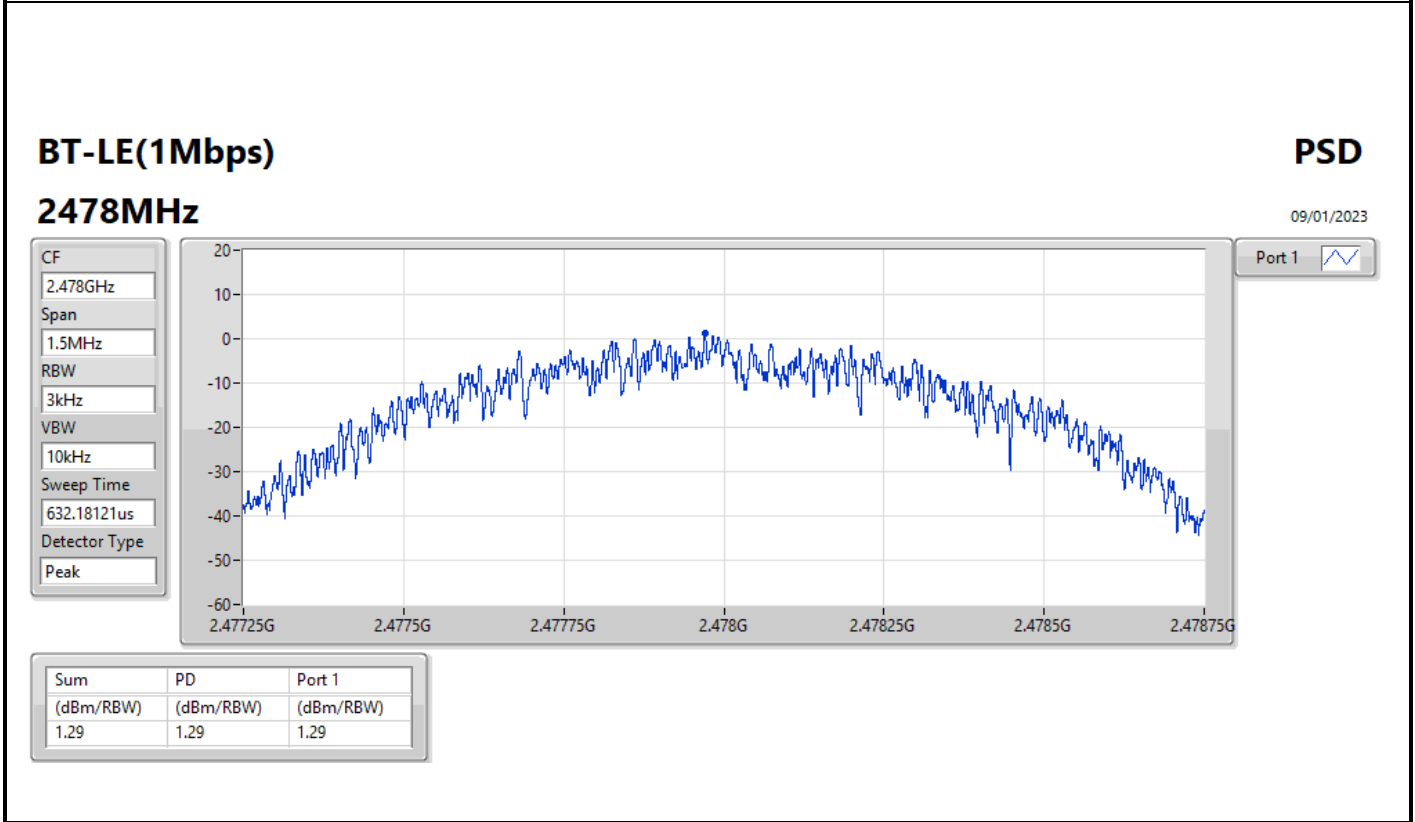
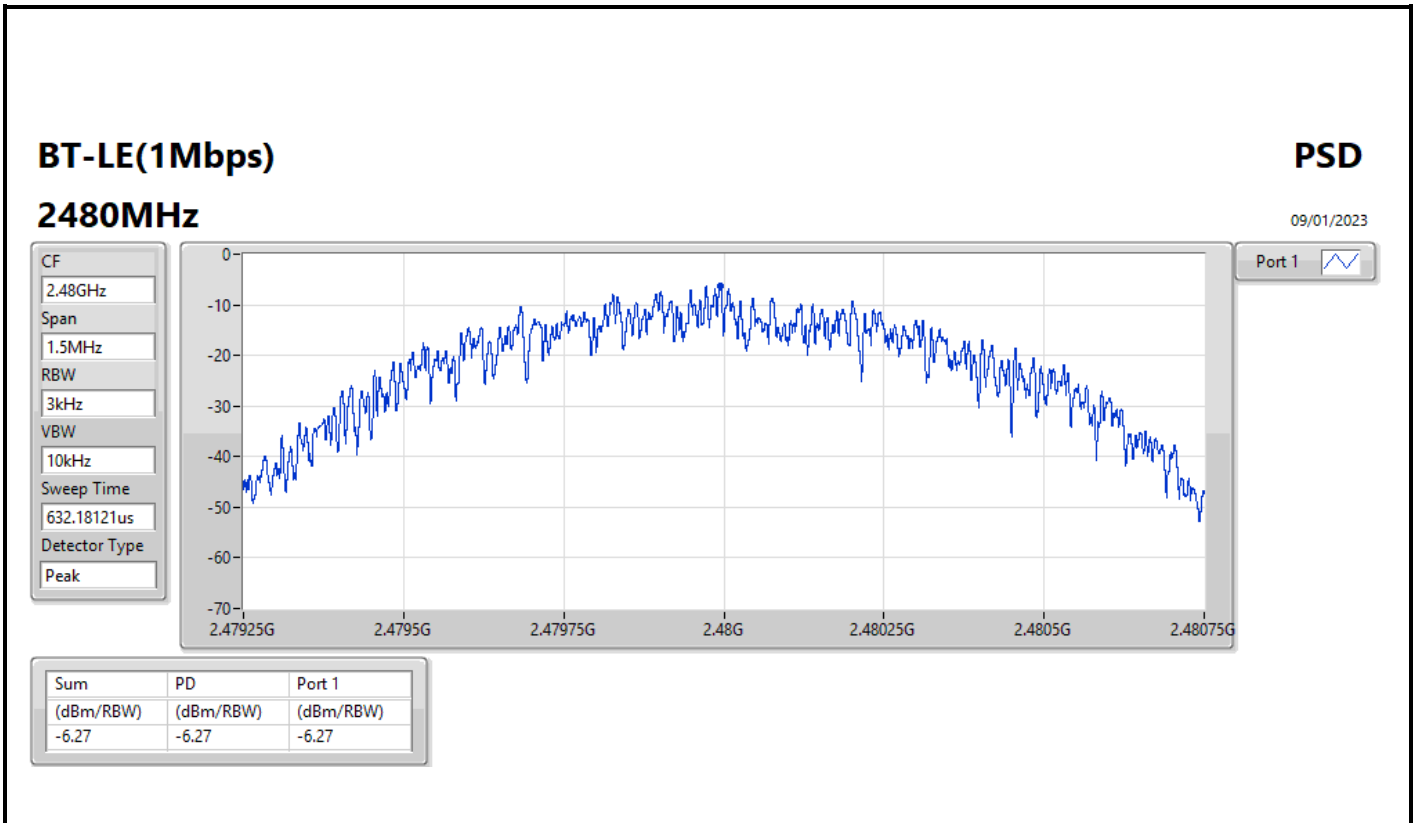
Sweep Time
632.18121us

Detector Type
RMS



Port 1 

Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.08	3.08	3.08





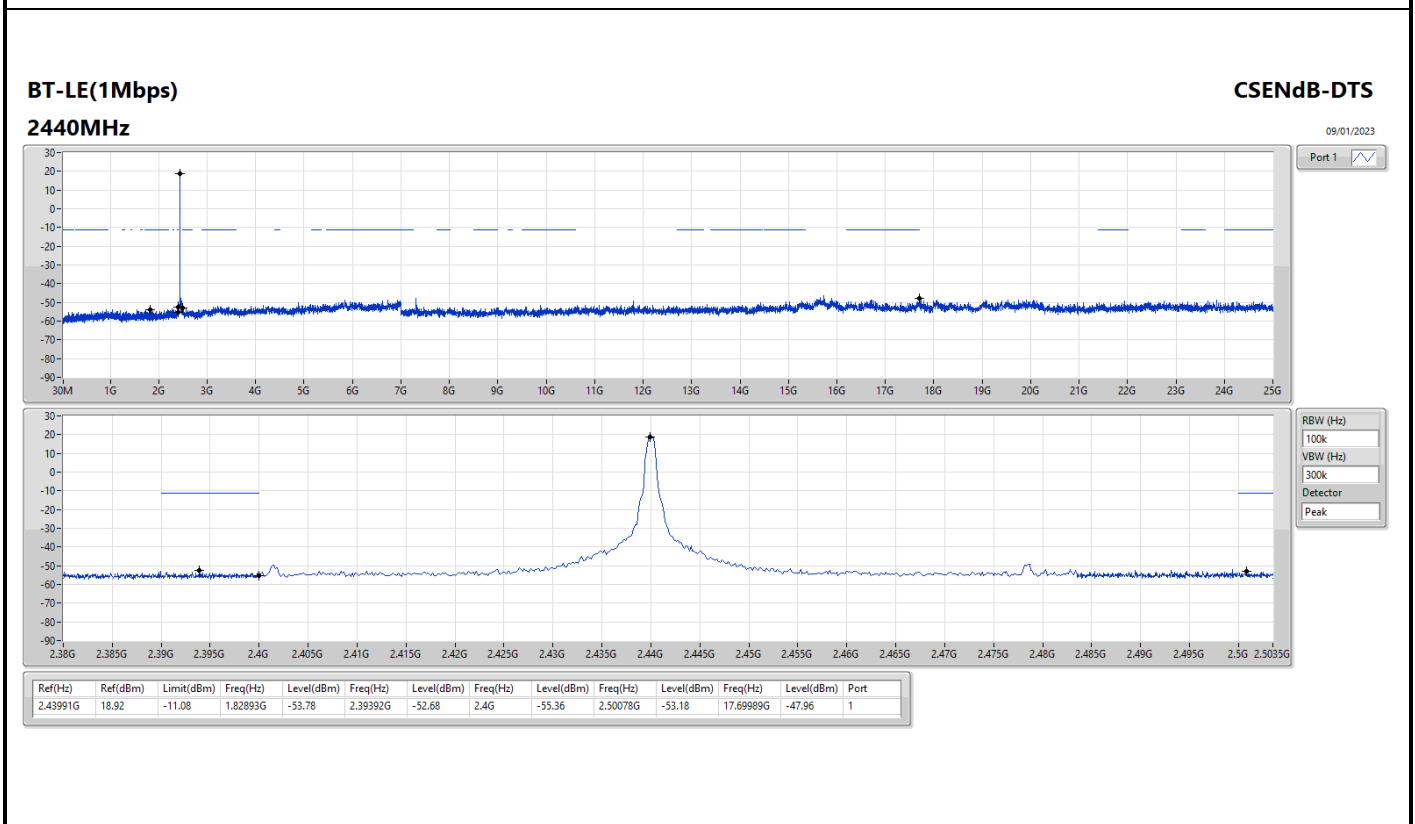
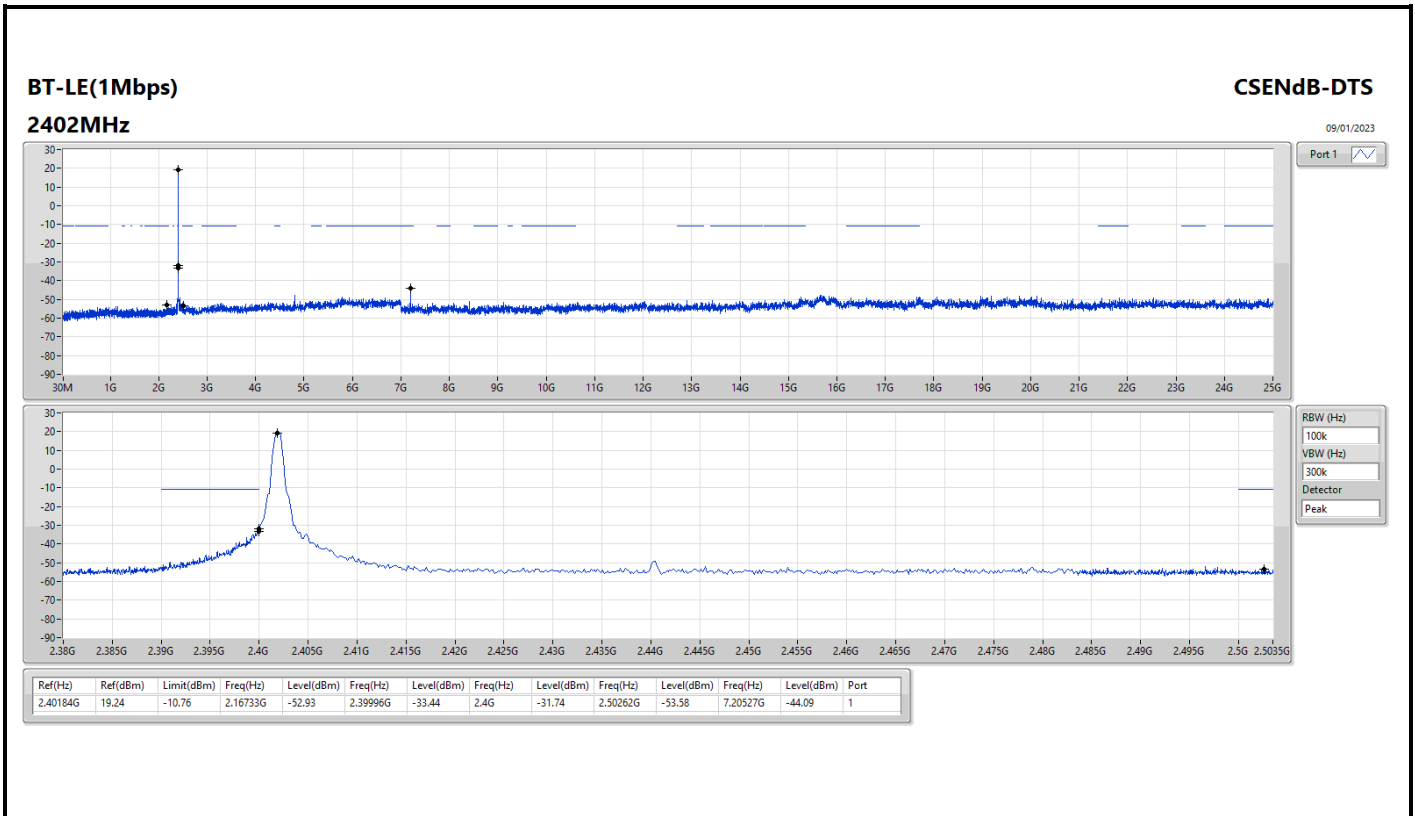
Summary

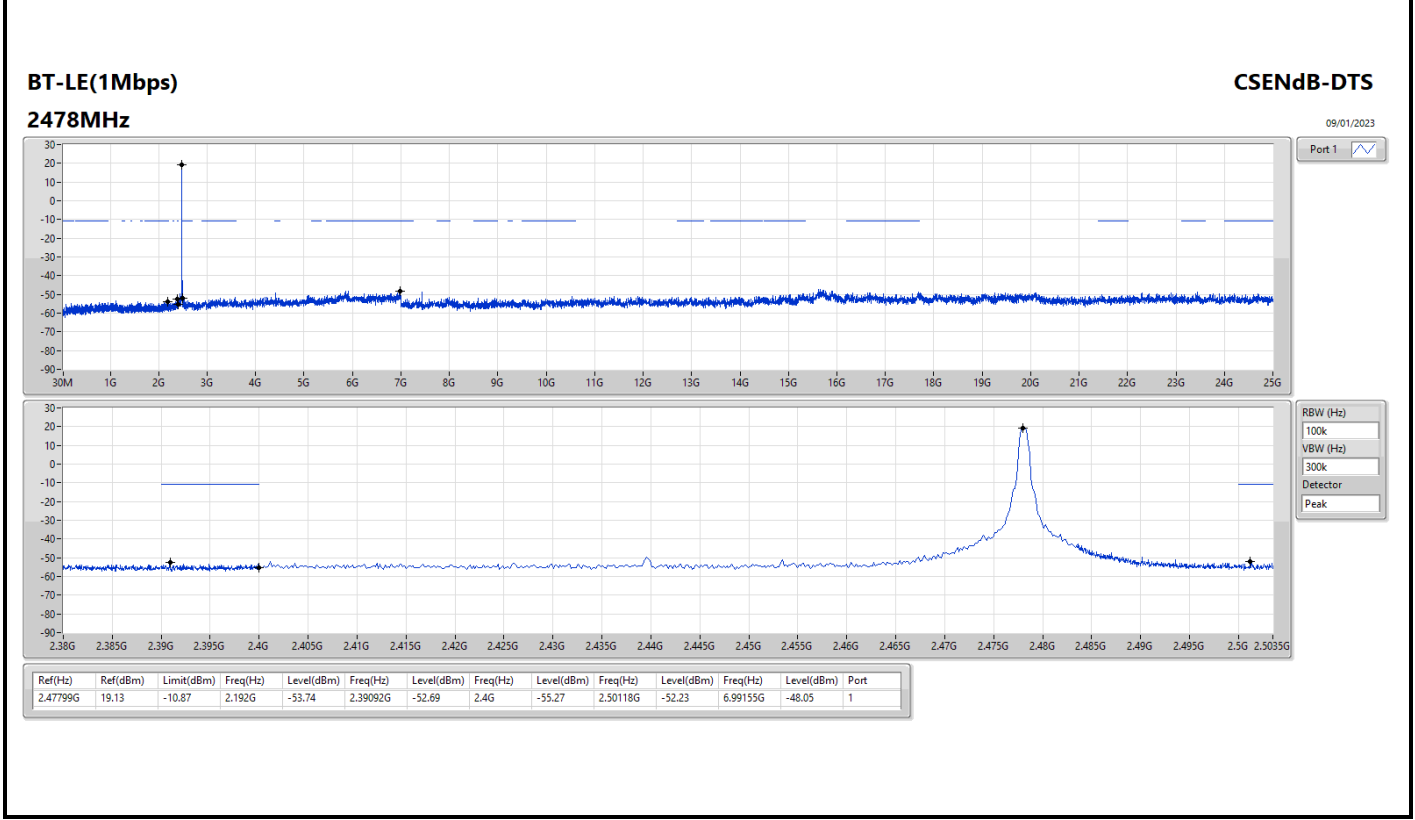
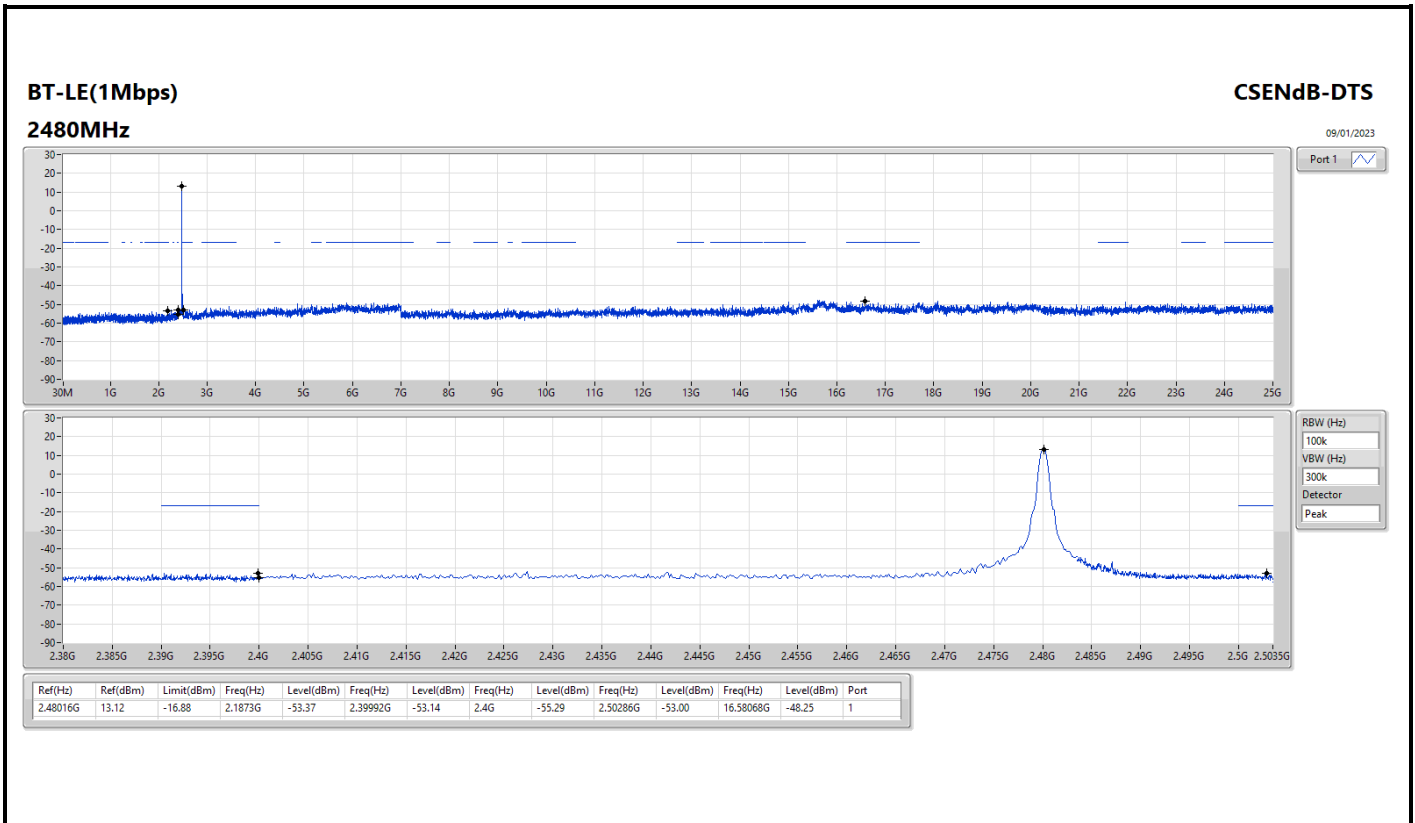
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.40184G	19.24	-10.76	2.16733G	-52.93	2.39996G	-33.44	2.4G	-31.74	2.50262G	-53.58	7.20527G	-44.09	1



Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40184G	19.24	-10.76	2.16733G	-52.93	2.39996G	-33.44	2.4G	-31.74	2.50262G	-53.58	7.20527G	-44.09	1
2440MHz	Pass	2.43991G	18.92	-11.08	1.82893G	-53.78	2.39392G	-52.68	2.4G	-55.36	2.50078G	-53.18	17.69989G	-47.96	1
2480MHz	Pass	2.48016G	13.12	-16.88	2.1873G	-53.37	2.39992G	-53.14	2.4G	-55.29	2.50286G	-53.00	16.58068G	-48.25	1
2478MHz	Pass	2.47799G	19.13	-10.87	2.192G	-53.74	2.39092G	-52.69	2.4G	-55.27	2.50118G	-52.23	6.99155G	-48.05	1







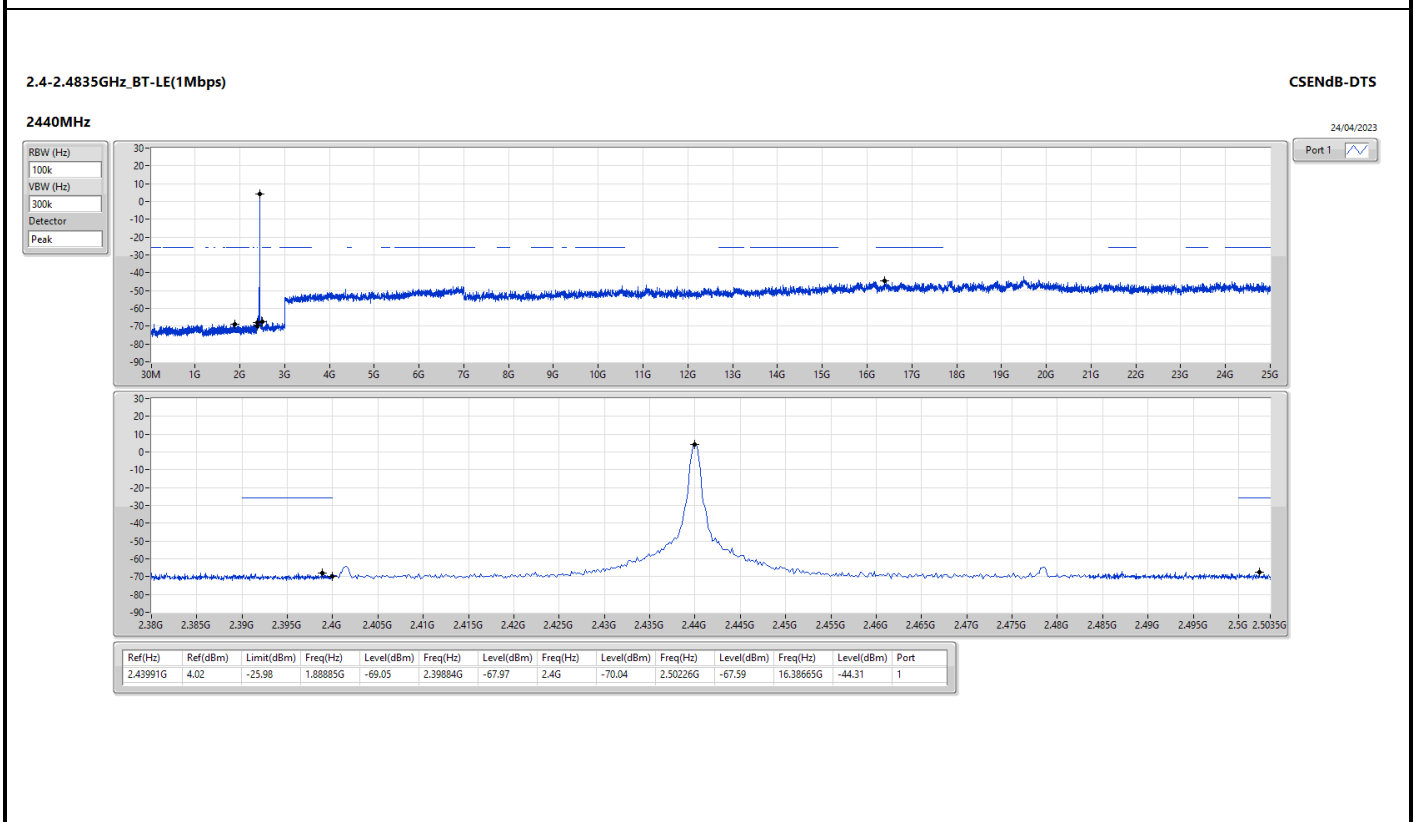
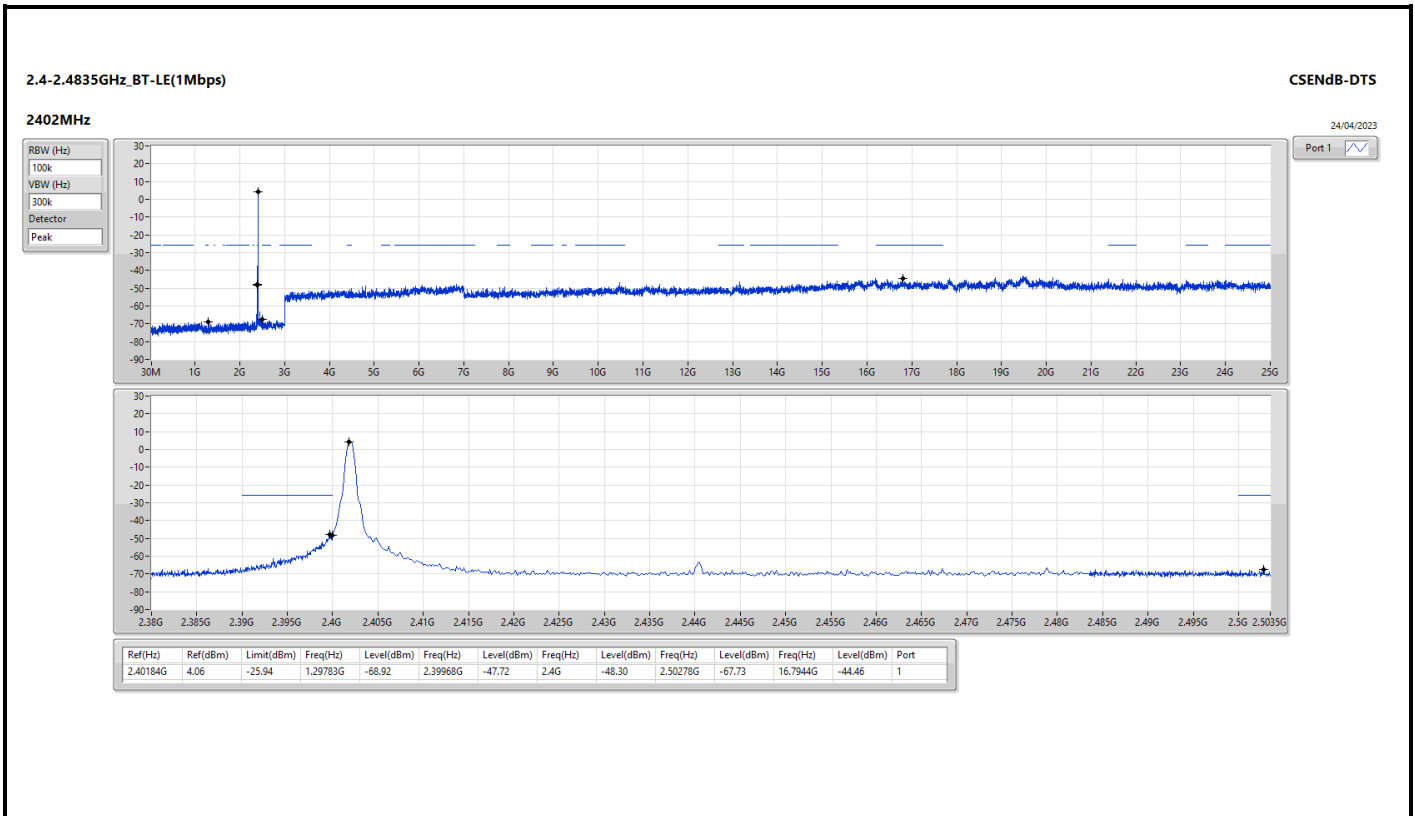
Summary

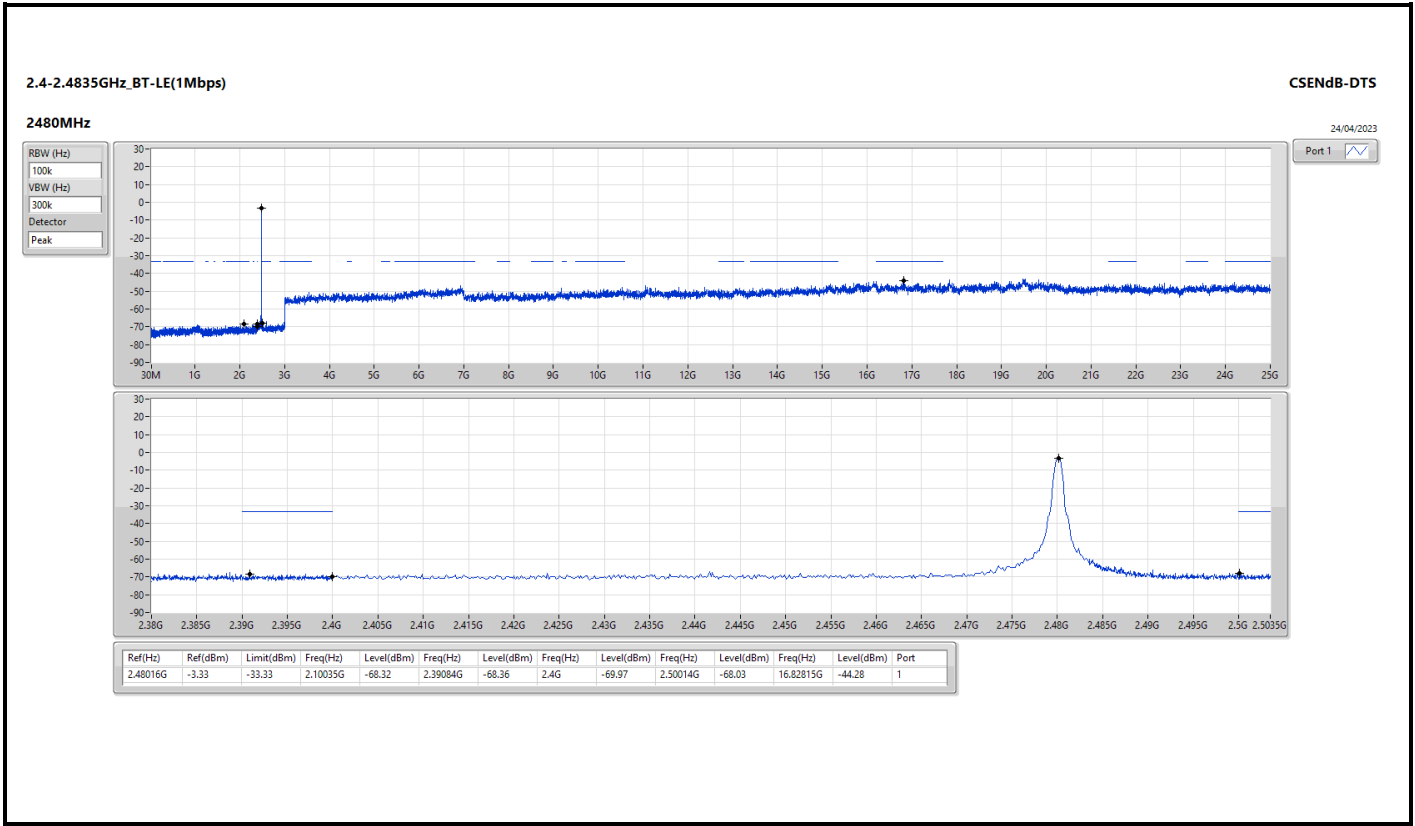
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.40184G	4.06	-25.94	1.29783G	-68.92	2.39968G	-47.72	2.4G	-48.30	2.50278G	-67.73	16.7944G	-44.46	1



Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40184G	4.06	-25.94	1.29783G	-68.92	2.39968G	-47.72	2.4G	-48.30	2.50278G	-67.73	16.7944G	-44.46	1
2440MHz	Pass	2.43991G	4.02	-25.98	1.88885G	-69.05	2.39884G	-67.97	2.4G	-70.04	2.50226G	-67.59	16.38665G	-44.31	1
2480MHz	Pass	2.48016G	-3.33	-33.33	2.10035G	-68.32	2.39084G	-68.36	2.4G	-69.97	2.50014G	-68.03	16.82815G	-44.28	1







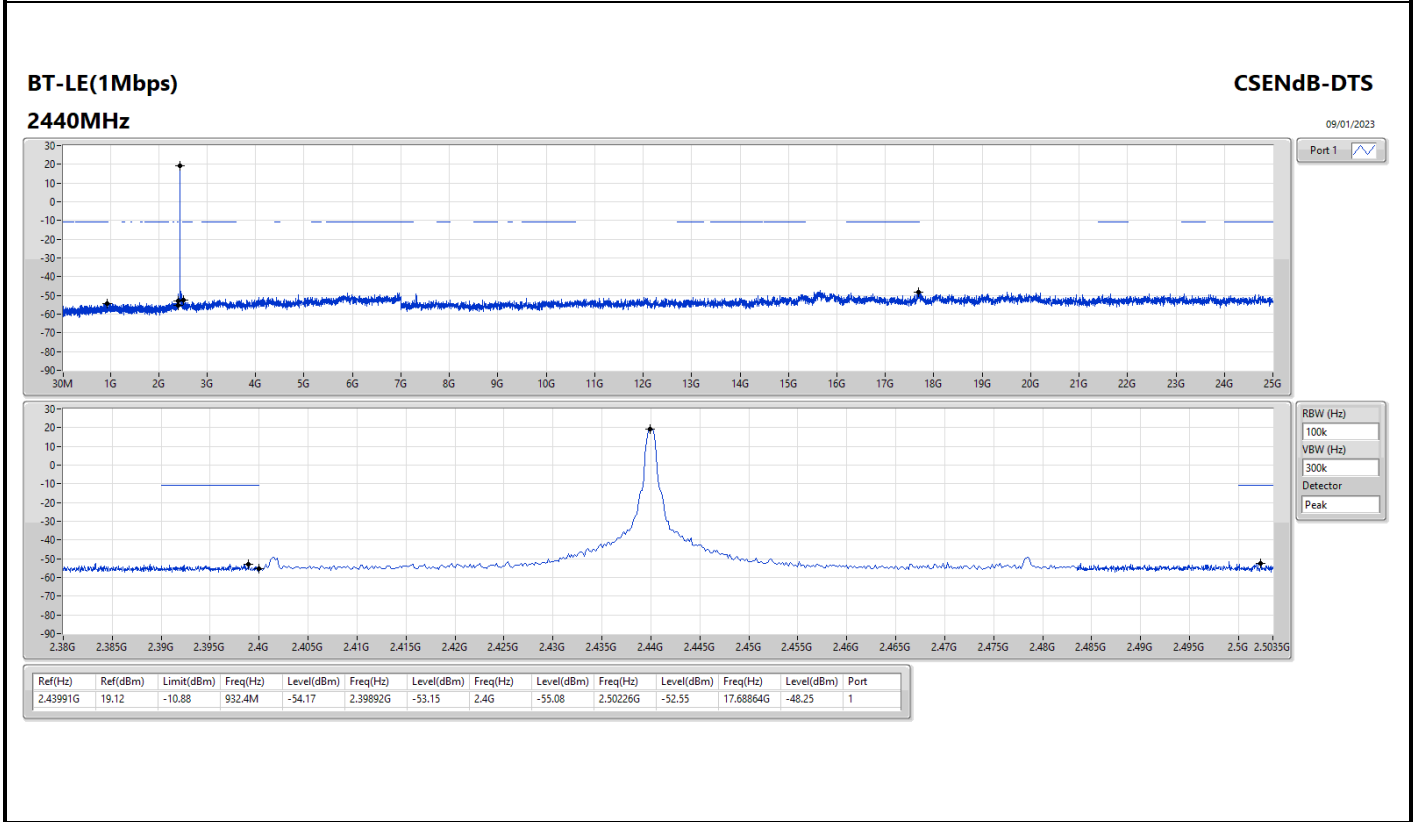
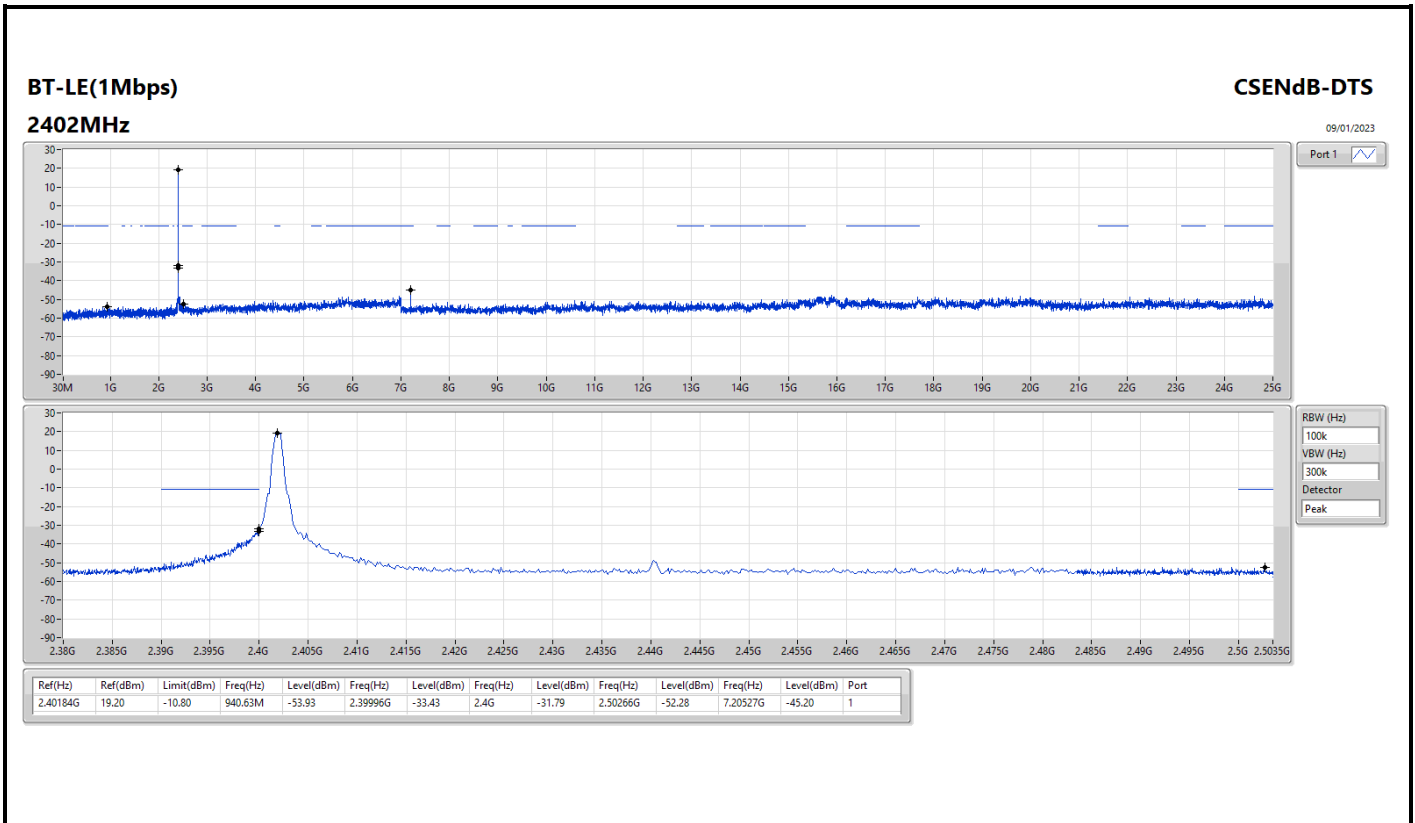
Summary

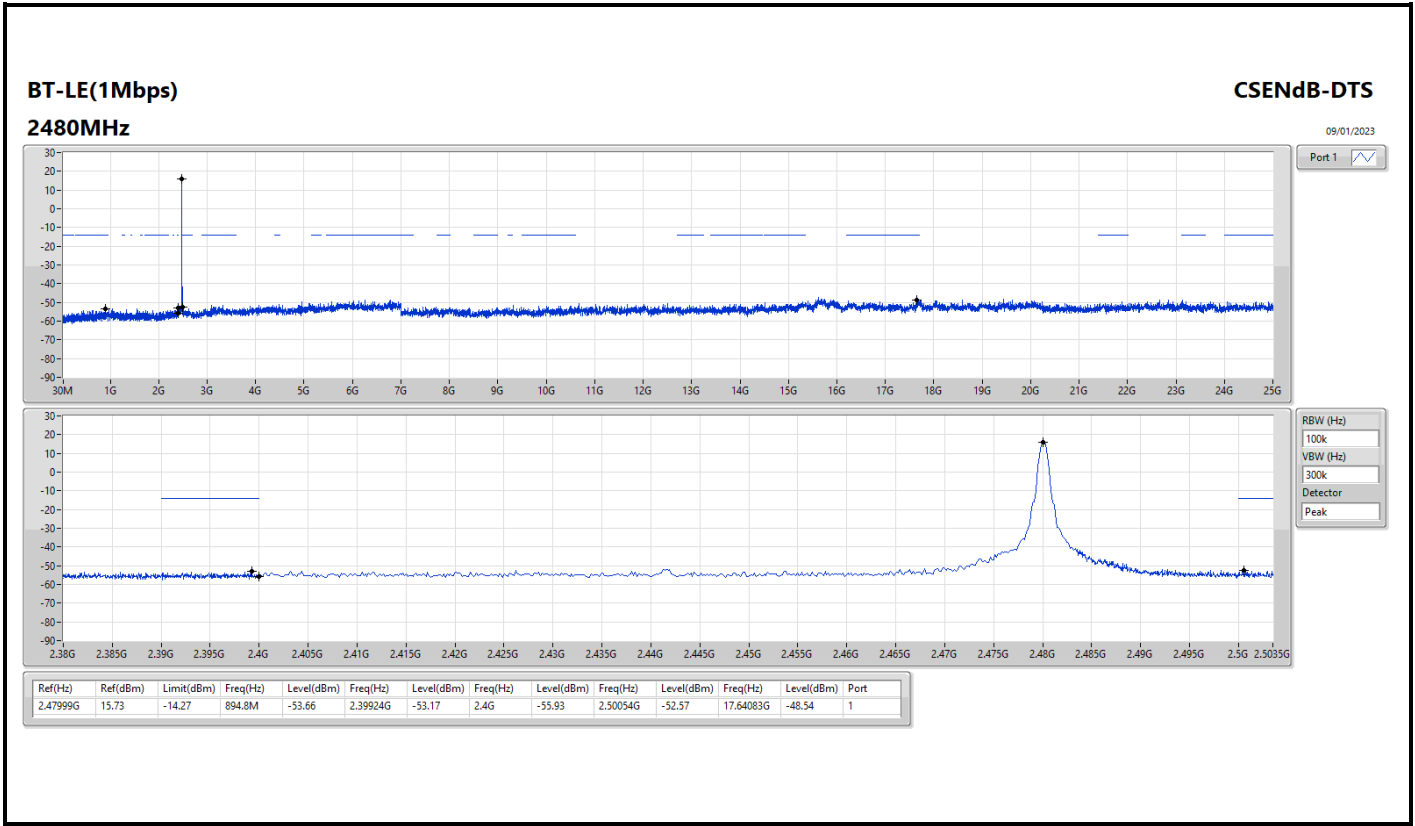
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.40184G	19.20	-10.80	940.63M	-53.93	2.39996G	-33.43	2.4G	-31.79	2.50266G	-52.28	7.20527G	-45.20	1



Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40184G	19.20	-10.80	940.63M	-53.93	2.39996G	-33.43	2.4G	-31.79	2.50266G	-52.28	7.20527G	-45.20	1
2440MHz	Pass	2.43991G	19.12	-10.88	932.4M	-54.17	2.39892G	-53.15	2.4G	-55.08	2.50226G	-52.55	17.68864G	-48.25	1
2480MHz	Pass	2.47999G	15.73	-14.27	894.8M	-53.66	2.39924G	-53.17	2.4G	-55.93	2.50054G	-52.57	17.64083G	-48.54	1







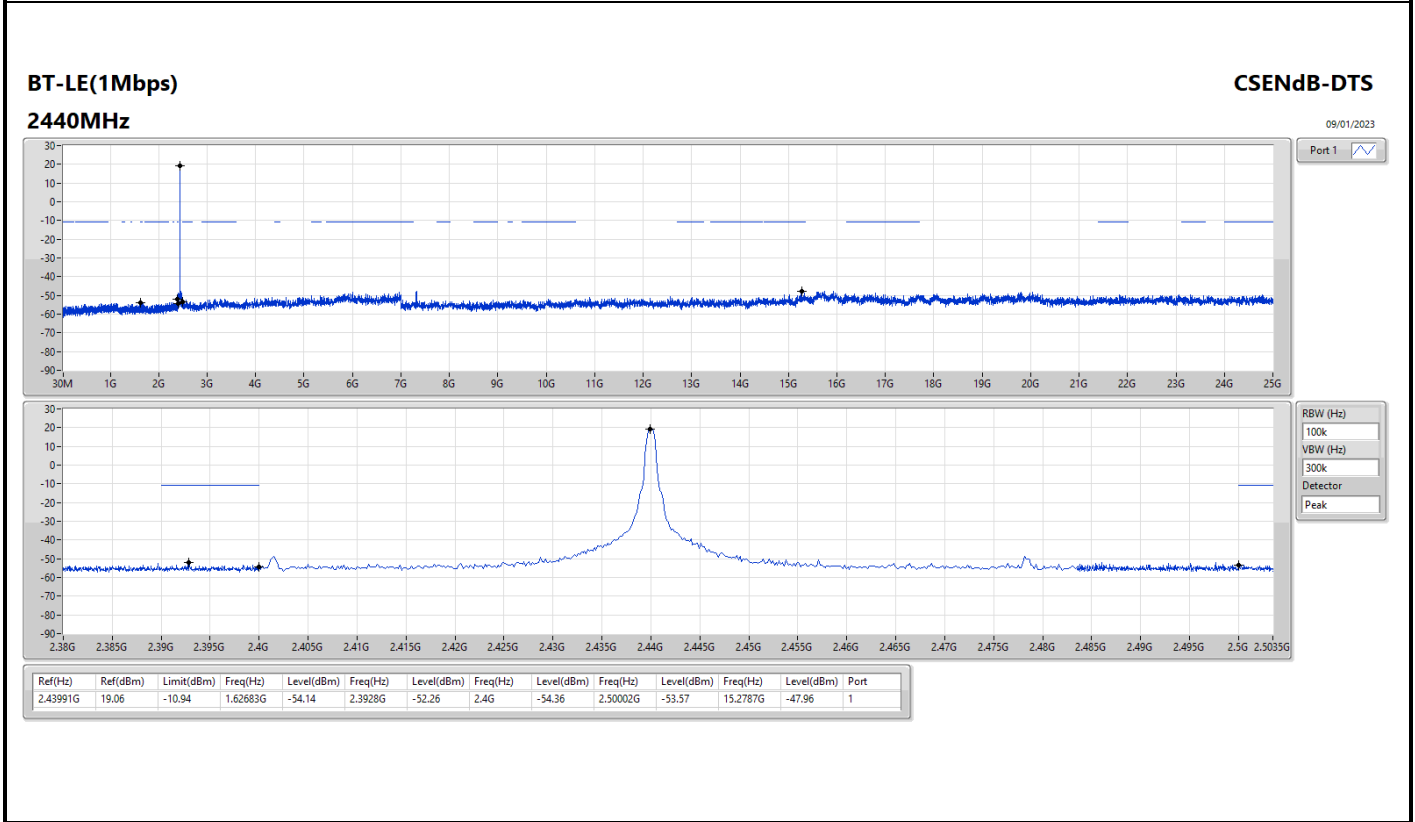
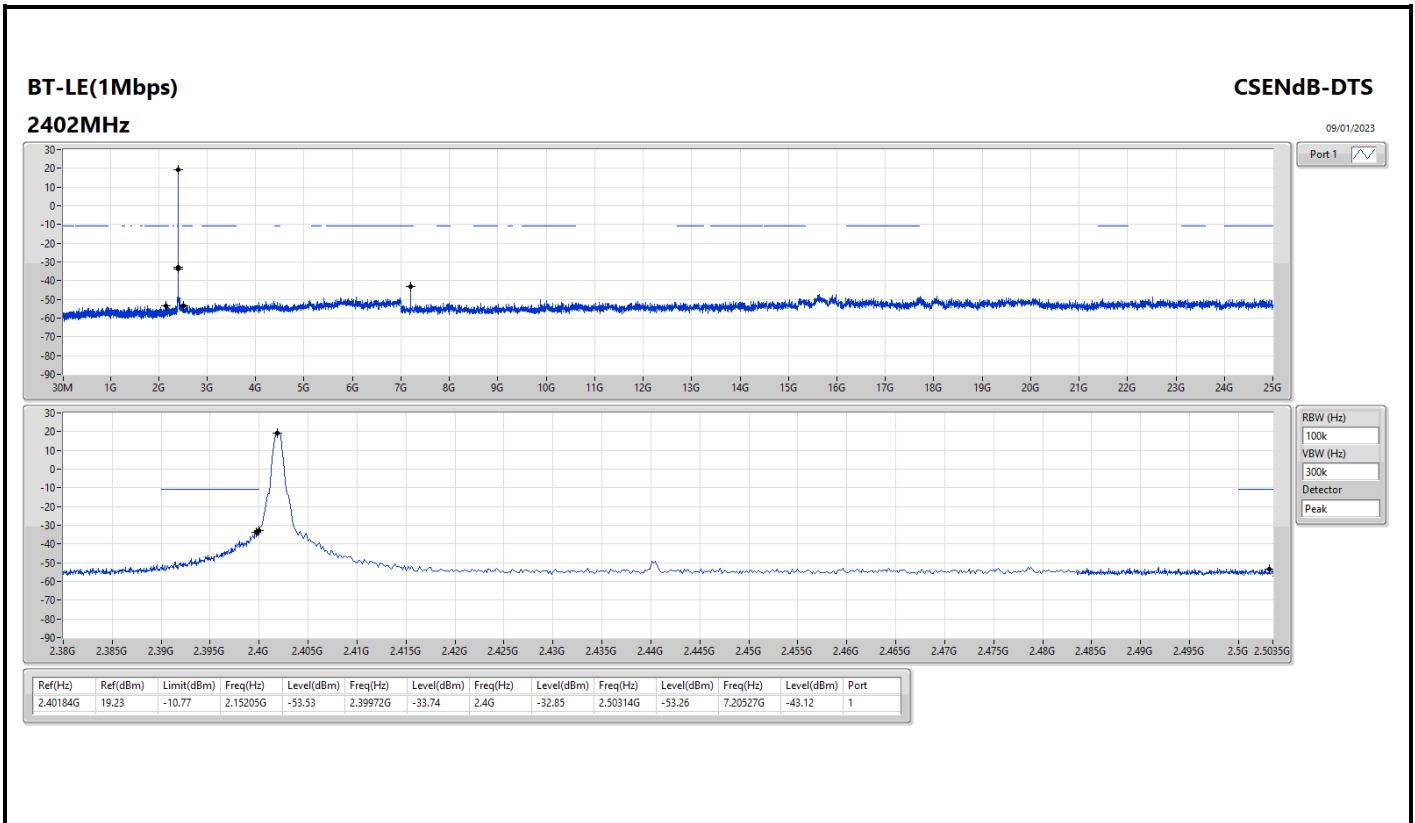
Summary

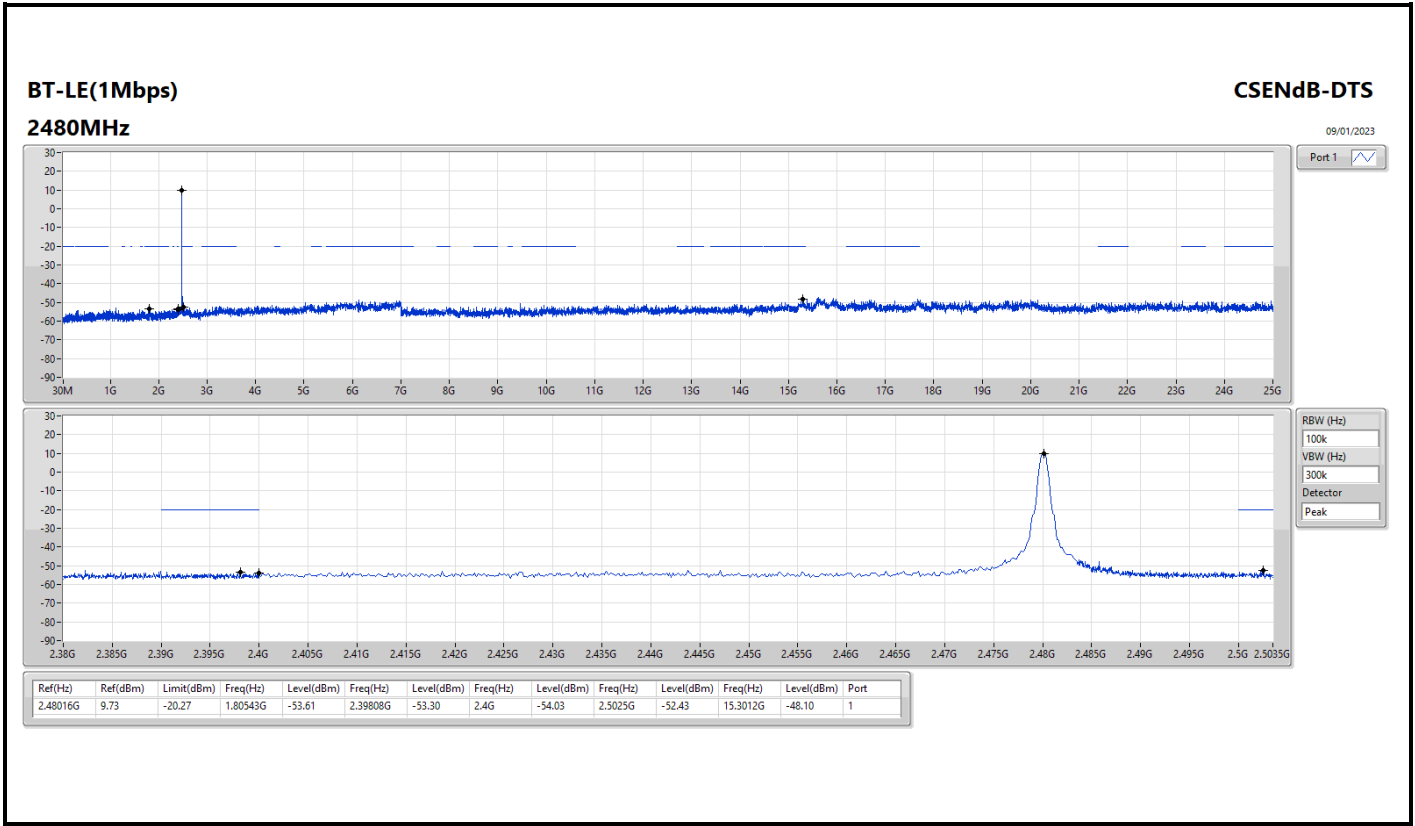
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.40184G	19.23	-10.77	2.15205G	-53.53	2.39972G	-33.74	2.4G	-32.85	2.50314G	-53.26	7.20527G	-43.12	1



Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.40184G	19.23	-10.77	2.15205G	-53.53	2.39972G	-33.74	2.4G	-32.85	2.50314G	-53.26	7.20527G	-43.12	1
2440MHz	Pass	2.43991G	19.06	-10.94	1.62683G	-54.14	2.3928G	-52.26	2.4G	-54.36	2.50002G	-53.57	15.2787G	-47.96	1
2480MHz	Pass	2.48016G	9.73	-20.27	1.80543G	-53.61	2.39808G	-53.30	2.4G	-54.03	2.5025G	-52.43	15.3012G	-48.10	1







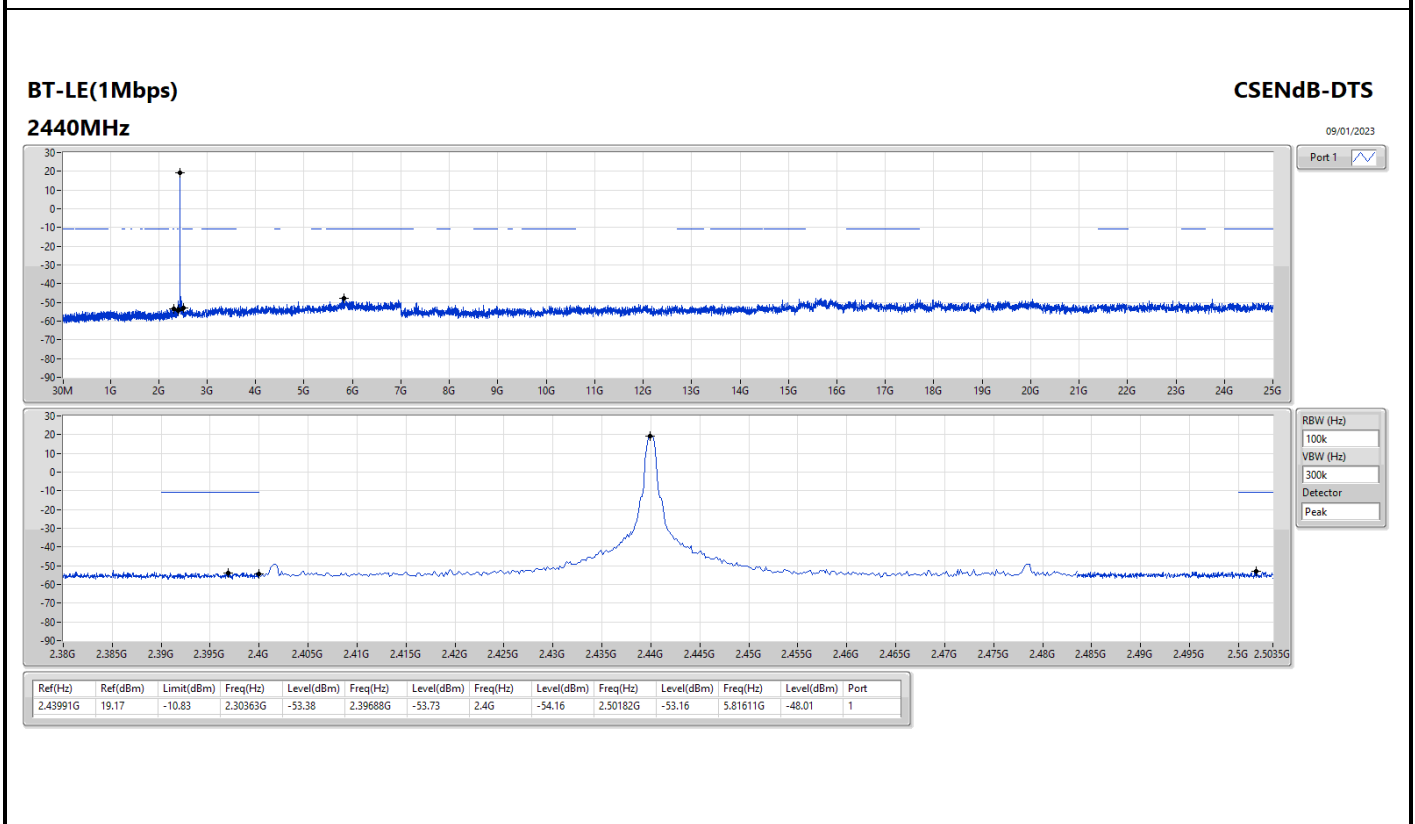
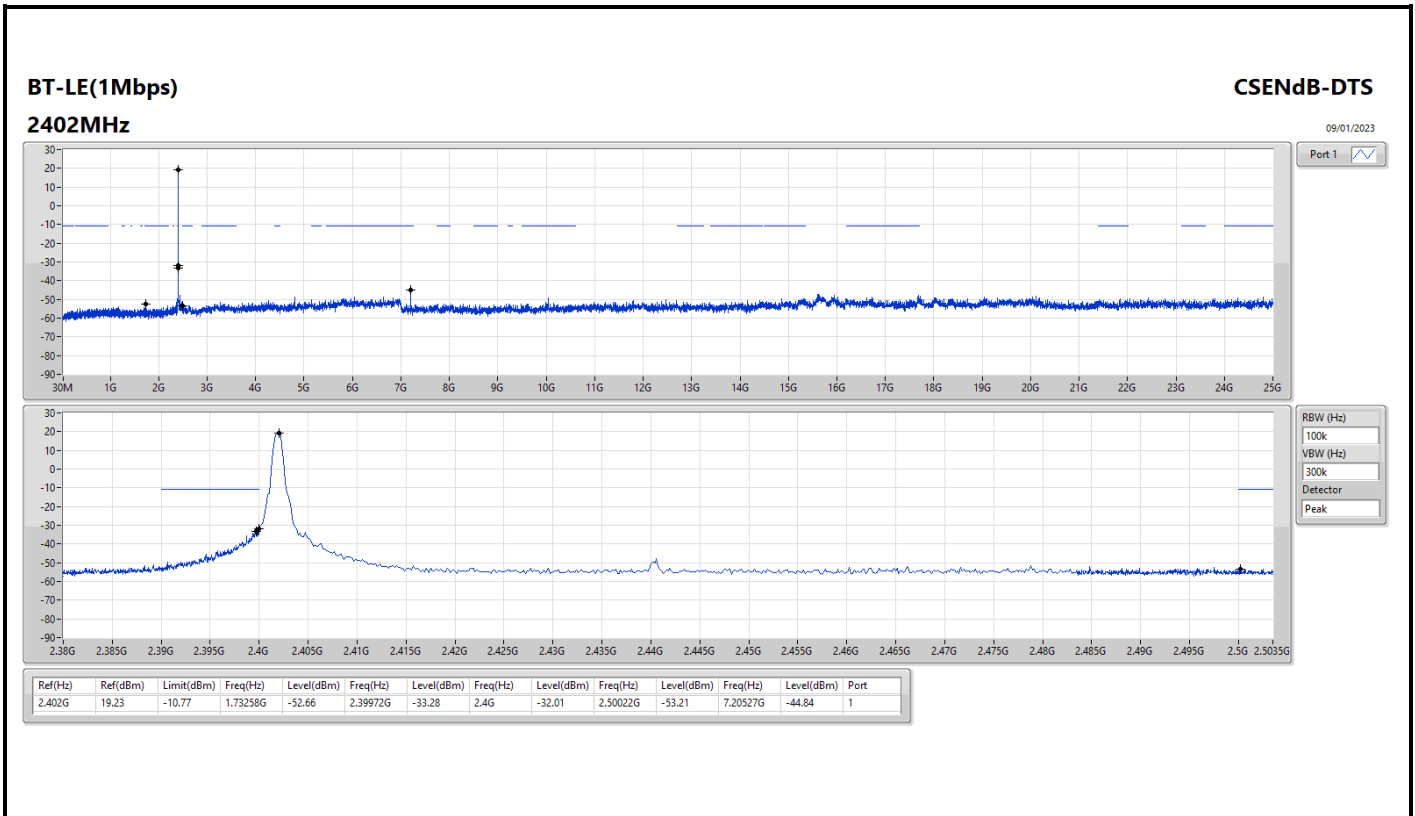
Summary

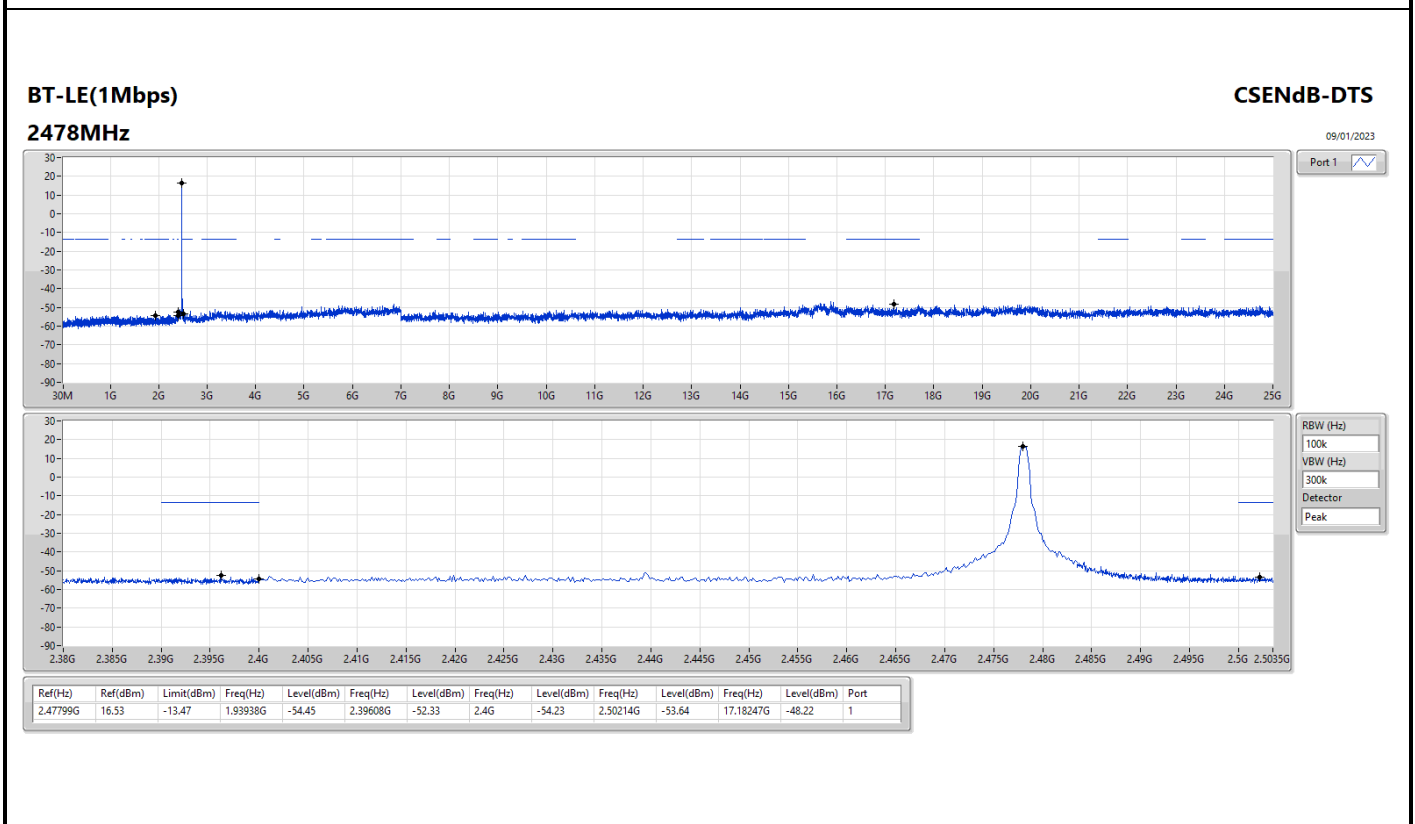
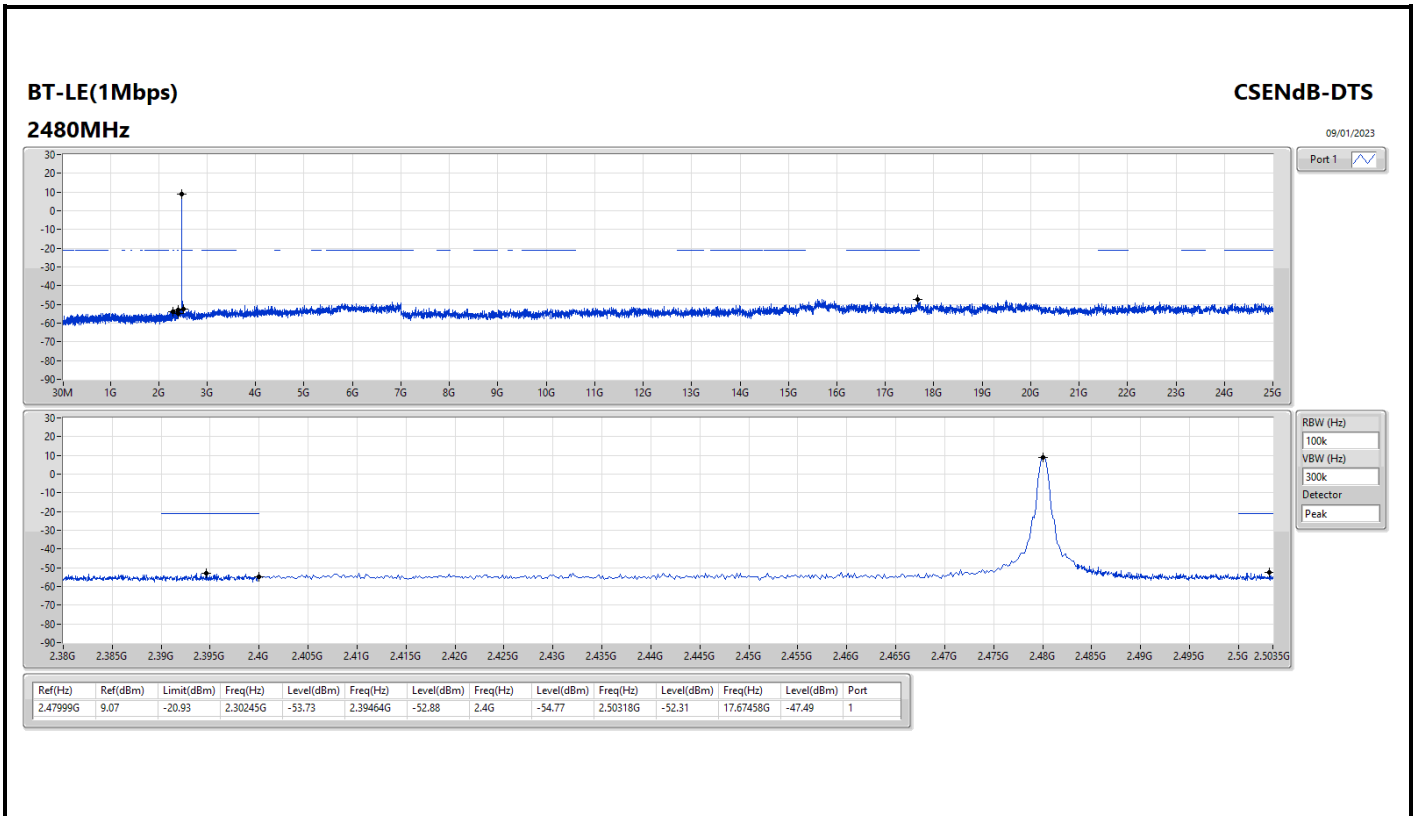
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	2.402G	19.23	-10.77	1.73258G	-52.66	2.39972G	-33.28	2.4G	-32.01	2.50022G	-53.21	7.20527G	-44.84	1



Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
BT-LE(1Mbps)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2402MHz	Pass	2.402G	19.23	-10.77	1.73258G	-52.66	2.39972G	-33.28	2.4G	-32.01	2.50022G	-53.21	7.20527G	-44.84	1
2440MHz	Pass	2.43991G	19.17	-10.83	2.30363G	-53.38	2.39688G	-53.73	2.4G	-54.16	2.50182G	-53.16	5.81611G	-48.01	1
2480MHz	Pass	2.47999G	9.07	-20.93	2.30245G	-53.73	2.39464G	-52.88	2.4G	-54.77	2.50318G	-52.31	17.67458G	-47.49	1
2478MHz	Pass	2.47799G	16.53	-13.47	1.93938G	-54.45	2.39608G	-52.33	2.4G	-54.23	2.50214G	-53.64	17.18247G	-48.22	1



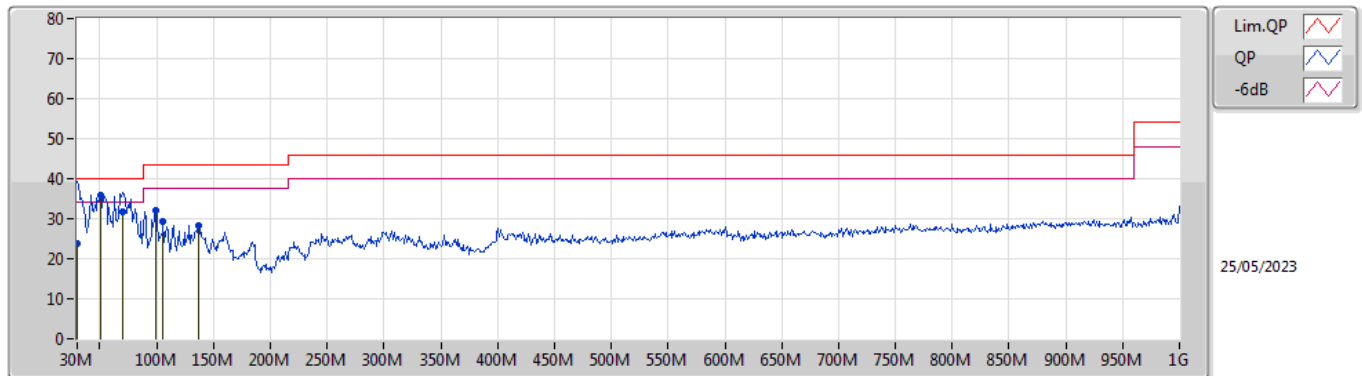




Summary

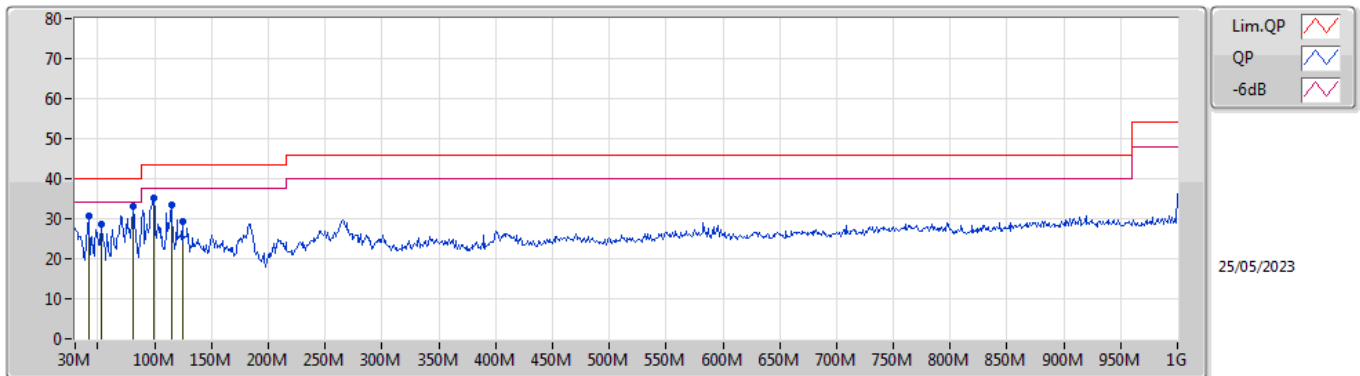
Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Condition
Mode 1	Pass	PK	50.37M	35.98	40.00	-4.02	Vertical

Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
QP	30M	23.83	40.00	-16.17	-6.67	3	Vertical	211	1.25	-	30.50	24.50	0.77	31.94
PK	50.37M	35.98	40.00	-4.02	-16.90	3	Vertical	62	1.50	"Worst"	52.88	14.30	1.00	32.20
QP	69.77M	31.58	40.00	-8.42	-18.54	3	Vertical	244	1.50	-	50.12	12.36	1.14	32.04
PK	98.87M	32.21	43.50	-11.29	-14.39	3	Vertical	360	2.00	-	46.60	16.45	1.32	32.16
PK	105.66M	29.40	43.50	-14.10	-13.41	3	Vertical	193	1.00	-	42.81	17.30	1.38	32.09
PK	136.7M	28.38	43.50	-15.12	-13.05	3	Vertical	0	1.50	-	41.43	17.42	1.52	31.99

Mode 1



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB/m)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	Raw (dBuV/m)	AF (dB/m)	CL (dB)	PA (dB)
PK	41.64M	30.73	40.00	-9.27	-12.98	3	Horizontal	176	1.00	-	43.71	18.24	0.92	32.14
PK	53.28M	28.55	40.00	-11.45	-17.94	3	Horizontal	131	2.00	-	46.49	13.22	1.05	32.21
PK	81.41M	33.24	40.00	-6.76	-17.68	3	Horizontal	202	3.00	"Worst"	50.92	13.07	1.23	31.98
PK	98.87M	35.34	43.50	-8.16	-14.39	3	Horizontal	201	3.00	-	49.73	16.45	1.32	32.16
PK	114.39M	33.42	43.50	-10.08	-12.64	3	Horizontal	359	3.00	-	46.06	17.87	1.46	31.97
PK	124.09M	29.35	43.50	-14.15	-12.32	3	Horizontal	279	2.00	-	41.67	18.07	1.52	31.91

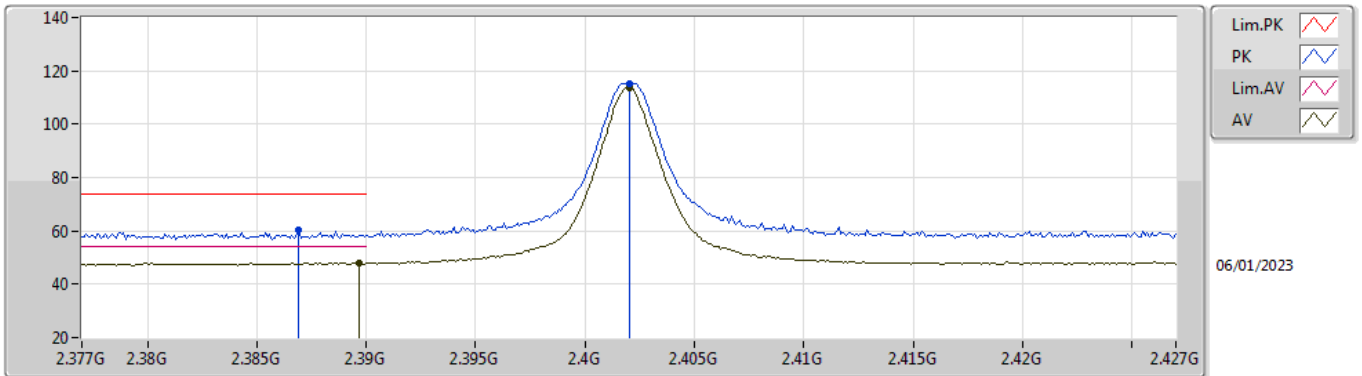


Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	AV	2.4835G	53.95	54.00	-0.05	3	Horizontal	33	1.57	-

BT-LE(1Mbps)

2402MHz_TX

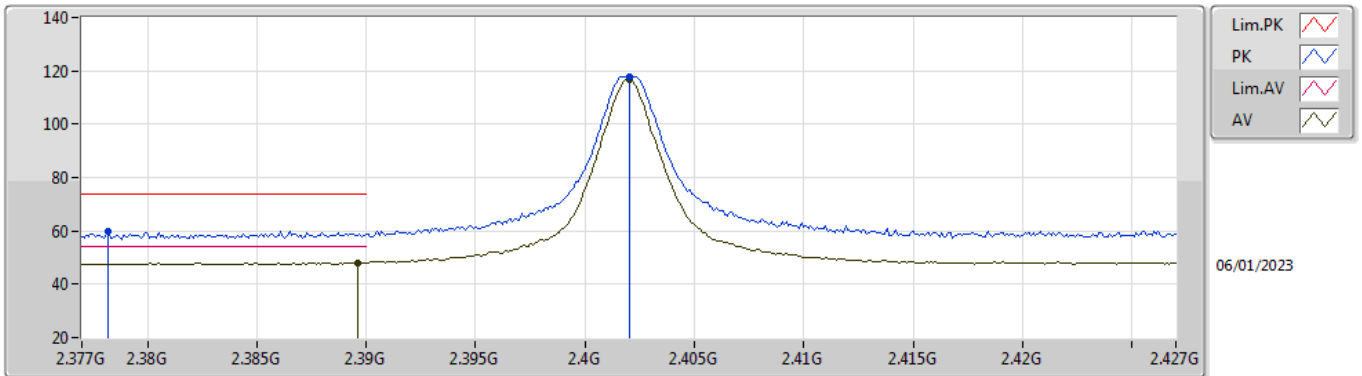


EUT_X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3869G	60.48	74.00	-13.52	29.12	3	Vertical	26	1.90	-	27.77	3.59	-
AV	2.3897G	47.90	54.00	-6.10	16.53	3	Vertical	26	1.90	-	27.78	3.59	-
PK	2.402G	115.10	Inf	-Inf	83.70	3	Vertical	26	1.90	-	27.80	3.60	-
AV	2.402G	113.75	Inf	-Inf	82.35	3	Vertical	26	1.90	-	27.80	3.60	-

BT-LE(1Mbps)

2402MHz_TX

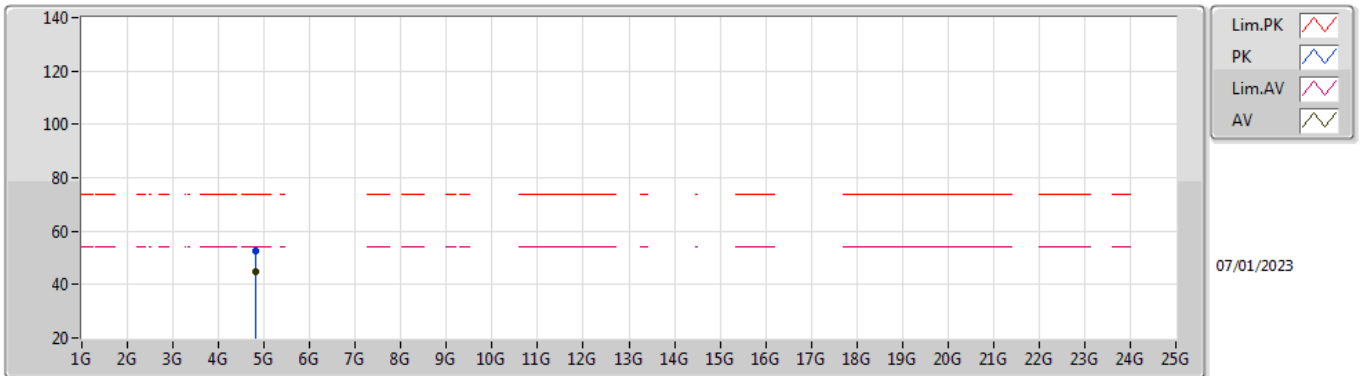


EUT_X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3782G	59.92	74.00	-14.08	28.58	3	Horizontal	38	1.26	-	27.76	3.58	-
AV	2.3896G	48.10	54.00	-5.90	16.73	3	Horizontal	38	1.26	-	27.78	3.59	-
PK	2.402G	118.01	Inf	-Inf	86.61	3	Horizontal	38	1.26	-	27.80	3.60	-
AV	2.402G	116.67	Inf	-Inf	85.27	3	Horizontal	38	1.26	-	27.80	3.60	-

BT-LE(1Mbps)

2402MHz_TX

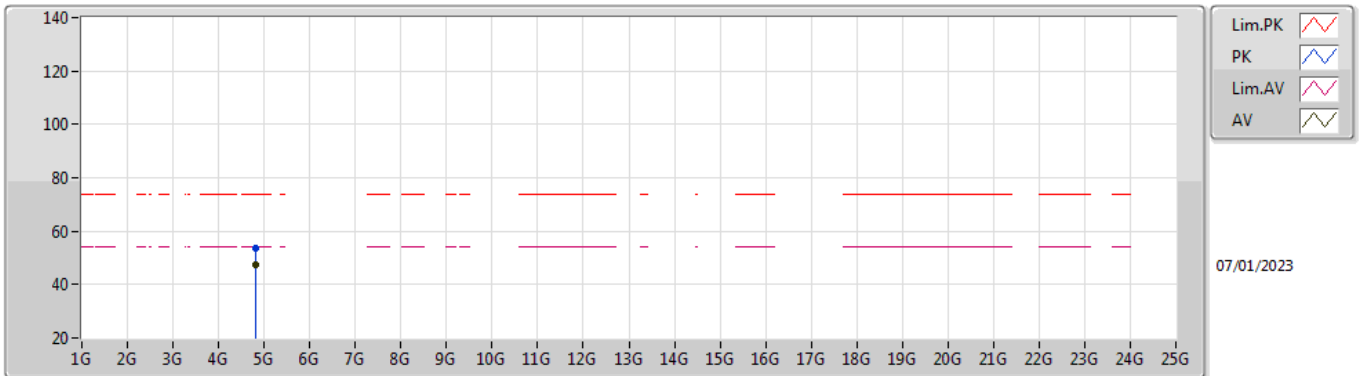


EUT X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.80394G	52.40	74.00	-21.60	46.87	3	Horizontal	3	1.80	-	32.72	5.70	32.89
AV	4.80396G	44.87	54.00	-9.13	39.34	3	Horizontal	3	1.80	-	32.72	5.70	32.89

BT-LE(1Mbps)

2402MHz_TX

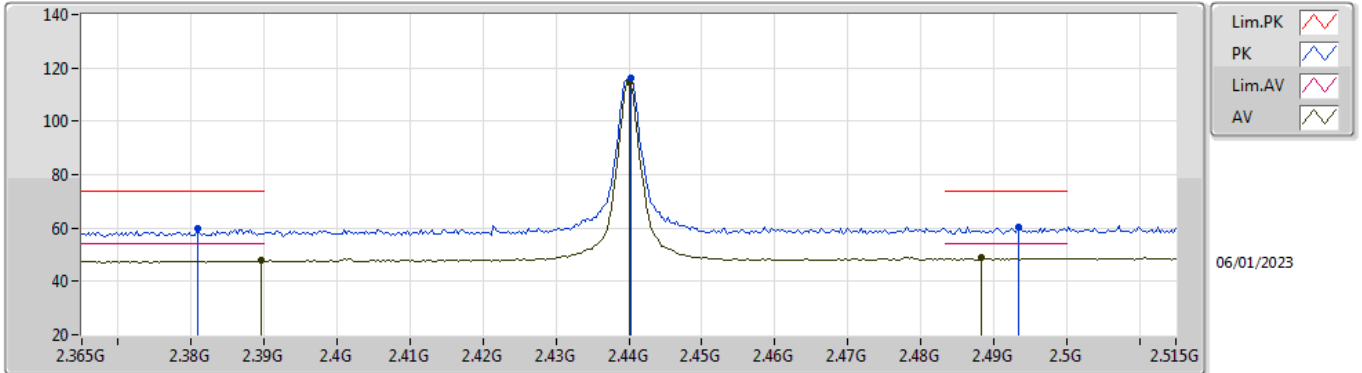


EUT_X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.80434G	53.60	74.00	-20.40	48.06	3	Horizontal	93	1.08	-	32.73	5.70	32.89
AV	4.80396G	47.42	54.00	-6.58	41.89	3	Horizontal	93	1.08	-	32.72	5.70	32.89

BT-LE(1Mbps)

2440MHz_TX

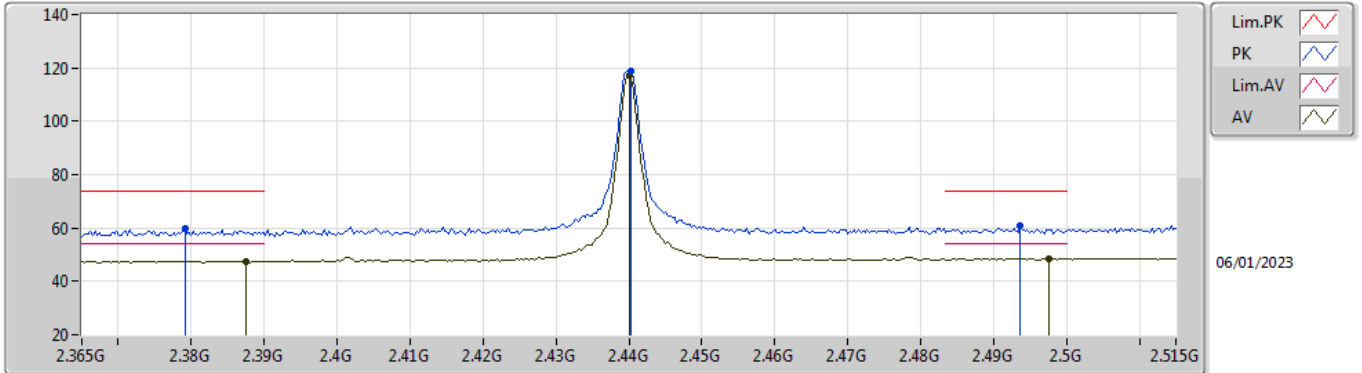


EUT_X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3809G	59.95	74.00	-14.05	28.61	3	Vertical	140	1.01	-	27.76	3.58	-
AV	2.3896G	47.78	54.00	-6.22	16.41	3	Vertical	140	1.01	-	27.78	3.59	-
PK	2.4403G	115.95	Inf	-Inf	84.45	3	Vertical	140	1.01	-	27.88	3.62	-
AV	2.44G	114.65	Inf	-Inf	83.15	3	Vertical	140	1.01	-	27.88	3.62	-
PK	2.4934G	60.16	74.00	-13.84	28.35	3	Vertical	140	1.01	-	28.16	3.65	-
AV	2.4883G	48.90	54.00	-5.10	17.13	3	Vertical	140	1.01	-	28.13	3.64	-

BT-LE(1Mbps)

2440MHz_TX

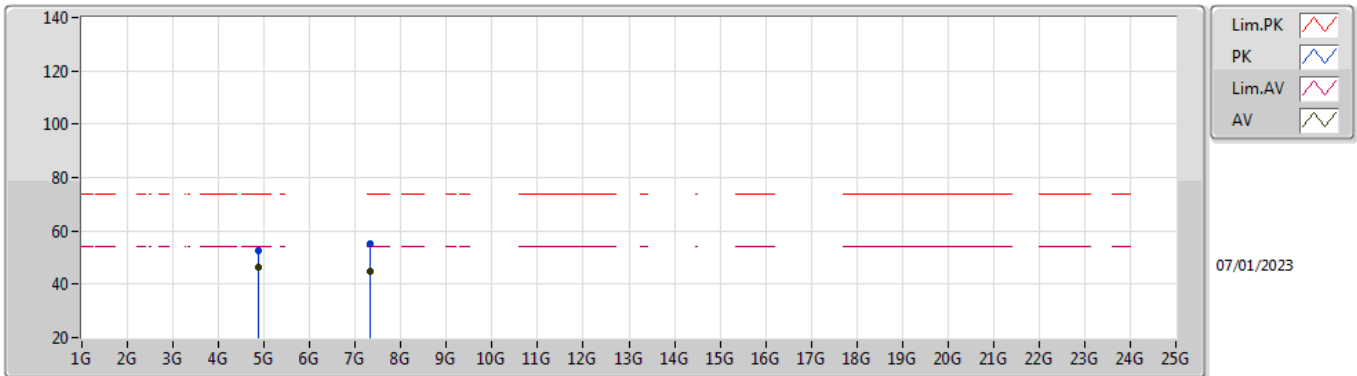


EUT_X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3791G	59.75	74.00	-14.25	28.41	3	Horizontal	37	1.40	-	27.76	3.58	-
AV	2.3875G	47.64	54.00	-6.36	16.28	3	Horizontal	37	1.40	-	27.77	3.59	-
PK	2.4403G	118.58	Inf	-Inf	87.08	3	Horizontal	37	1.40	-	27.88	3.62	-
AV	2.44G	117.14	Inf	-Inf	85.64	3	Horizontal	37	1.40	-	27.88	3.62	-
PK	2.4937G	60.62	74.00	-13.38	28.81	3	Horizontal	37	1.40	-	28.16	3.65	-
AV	2.4976G	48.60	54.00	-5.40	16.76	3	Horizontal	37	1.40	-	28.19	3.65	-

BT-LE(1Mbps)

2440MHz_TX

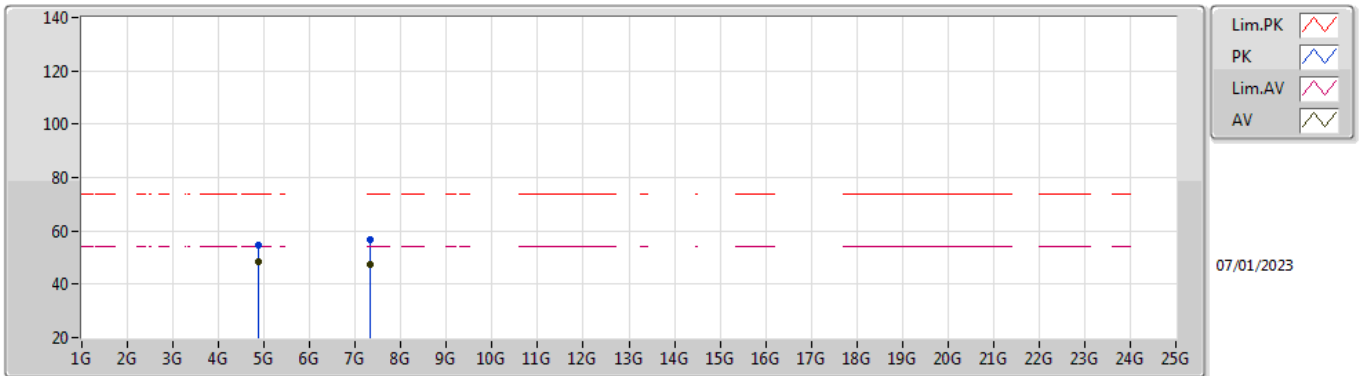


EUT_X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.88054G	52.68	74.00	-21.32	46.77	3	Vertical	4	1.75	-	33.00	5.78	32.87
AV	4.8799G	46.15	54.00	-7.85	40.24	3	Vertical	4	1.75	-	33.00	5.78	32.87
PK	7.32056G	55.04	74.00	-18.96	43.47	3	Vertical	29	2.86	-	37.60	7.16	33.19
AV	7.3192G	44.68	54.00	-9.32	33.11	3	Vertical	29	2.86	-	37.60	7.16	33.19

BT-LE(1Mbps)

2440MHz_TX

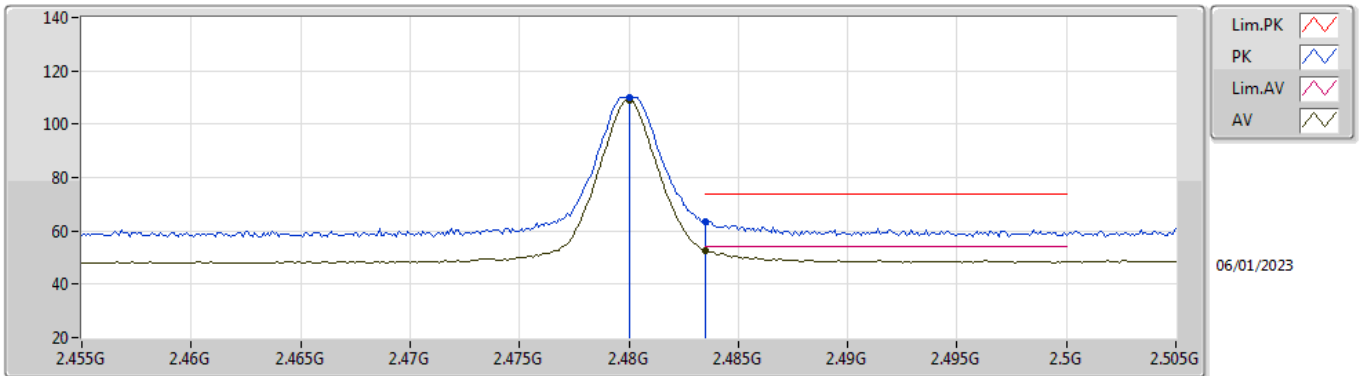


EUT_X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.8805G	54.58	74.00	-19.42	48.67	3	Horizontal	94	1.08	-	33.00	5.78	32.87
AV	4.87986G	48.24	54.00	-5.76	42.33	3	Horizontal	94	1.08	-	33.00	5.78	32.87
PK	7.31916G	56.63	74.00	-17.37	45.06	3	Horizontal	323	2.39	-	37.60	7.16	33.19
AV	7.31942G	47.20	54.00	-6.80	35.63	3	Horizontal	323	2.39	-	37.60	7.16	33.19

BT-LE(1Mbps)

2480MHz_TX

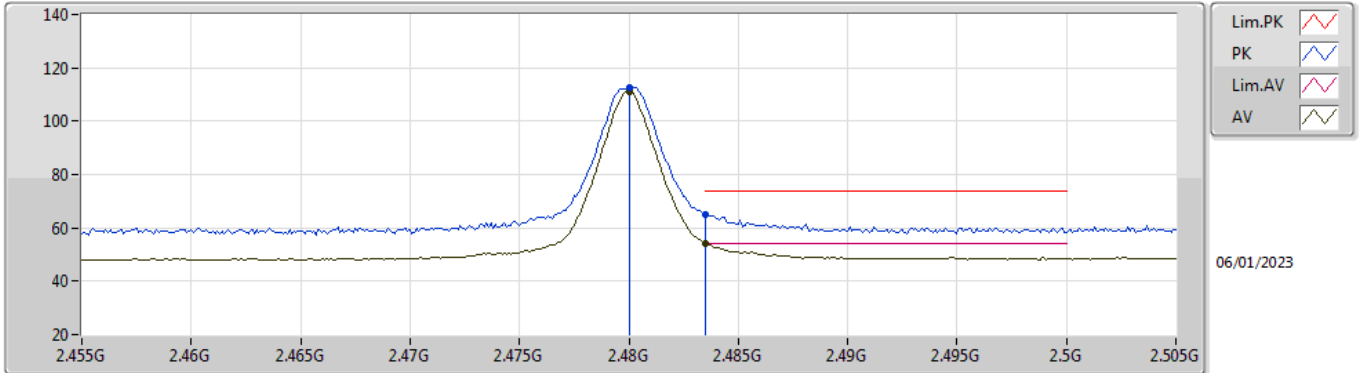


EUT_X_1TX
Setting 125
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.48G	110.24	Inf	-Inf	78.52	3	Vertical	16	2.72	-	28.08	3.64	-
AV	2.48G	108.95	Inf	-Inf	77.23	3	Vertical	16	2.72	-	28.08	3.64	-
PK	2.4835G	63.49	74.00	-10.51	31.75	3	Vertical	16	2.72	-	28.10	3.64	-
AV	2.4835G	52.55	54.00	-1.45	20.81	3	Vertical	16	2.72	-	28.10	3.64	-

BT-LE(1Mbps)

2480MHz_TX

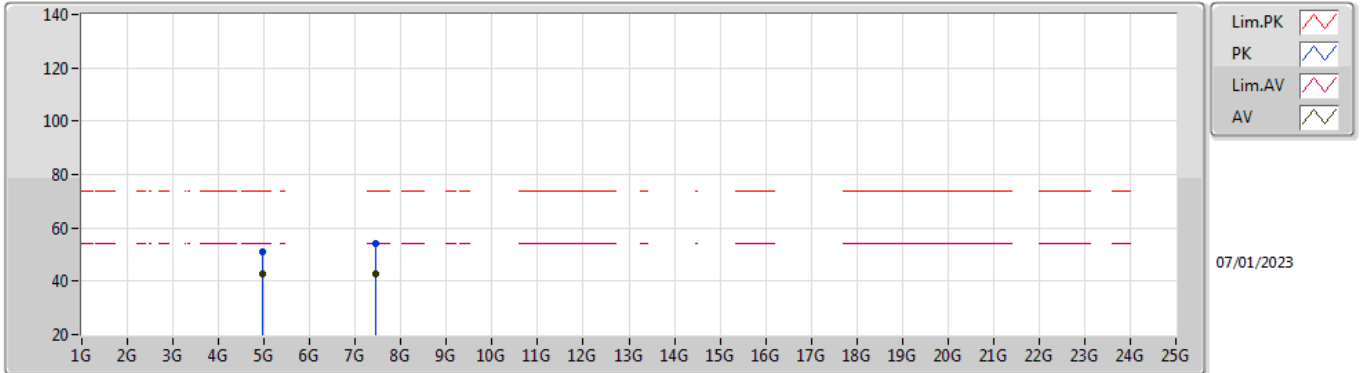


EUT_X_1TX
Setting 125
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.48G	112.39	Inf	-Inf	80.67	3	Horizontal	33	1.57	-	28.08	3.64	-
AV	2.48G	111.04	Inf	-Inf	79.32	3	Horizontal	33	1.57	-	28.08	3.64	-
PK	2.4835G	65.01	74.00	-8.99	33.27	3	Horizontal	33	1.57	-	28.10	3.64	-
AV	2.4835G	53.95	54.00	-0.05	22.21	3	Horizontal	33	1.57	-	28.10	3.64	-

BT-LE(1Mbps)

2480MHz_TX

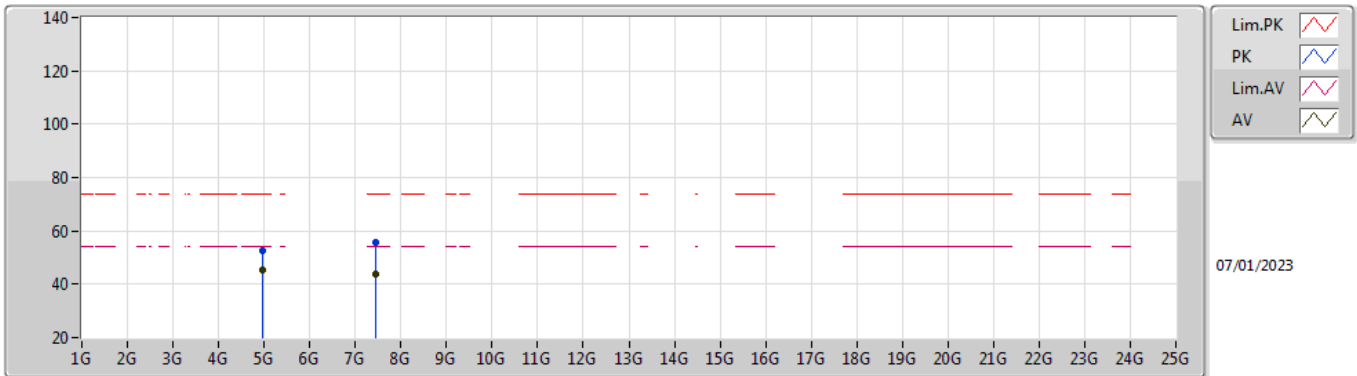


EUT_X_1TX
Setting 125
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.9605G	51.26	74.00	-22.74	45.24	3	Vertical	347	1.80	-	33.02	5.86	32.86
AV	4.95986G	42.79	54.00	-11.21	36.77	3	Vertical	347	1.80	-	33.02	5.86	32.86
PK	7.43926G	54.25	74.00	-19.75	42.78	3	Vertical	29	2.96	-	37.50	7.22	33.25
AV	7.43938G	42.67	54.00	-11.33	31.20	3	Vertical	29	2.96	-	37.50	7.22	33.25

BT-LE(1Mbps)

2480MHz_TX

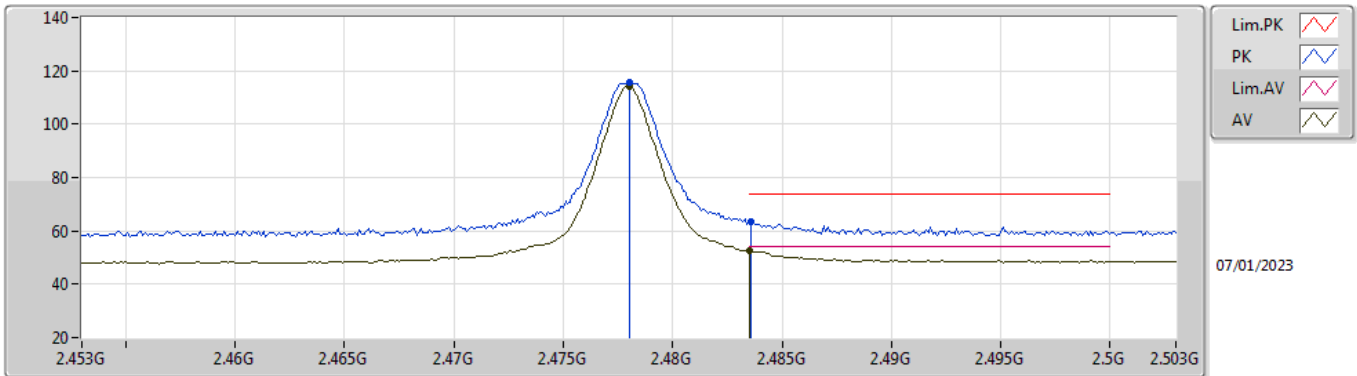


EUT_X_1TX
Setting 125
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.95952G	52.46	74.00	-21.54	46.44	3	Horizontal	94	1.05	-	33.02	5.86	32.86
AV	4.95994G	45.14	54.00	-8.86	39.12	3	Horizontal	94	1.05	-	33.02	5.86	32.86
PK	7.44064G	55.87	74.00	-18.13	44.40	3	Horizontal	327	2.51	-	37.50	7.22	33.25
AV	7.4394G	44.01	54.00	-9.99	32.54	3	Horizontal	327	2.51	-	37.50	7.22	33.25

BT-LE(1Mbps)

2478MHz_TX

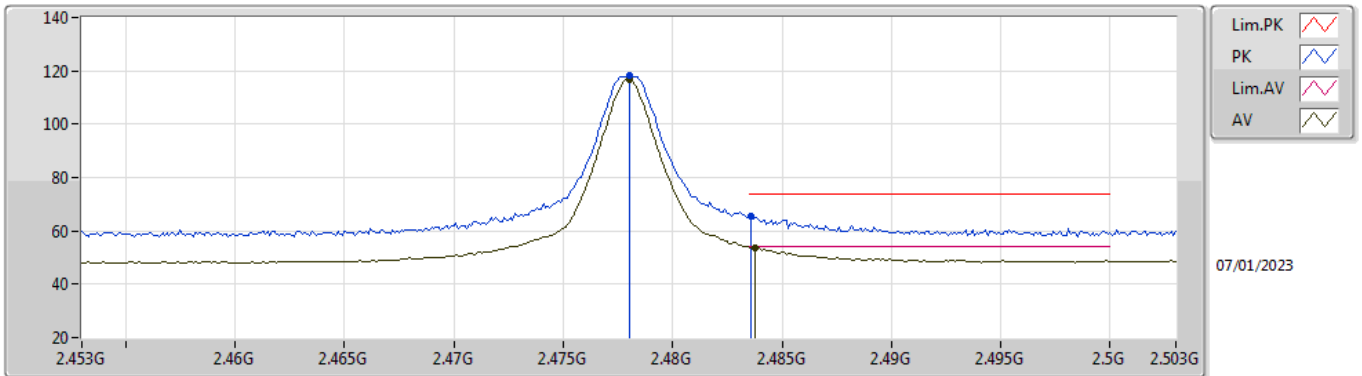


EUT_X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.478G	115.44	Inf	-Inf	83.73	3	Vertical	14	2.77	-	28.07	3.64	-
AV	2.478G	114.05	Inf	-Inf	82.34	3	Vertical	14	2.77	-	28.07	3.64	-
PK	2.4836G	63.64	74.00	-10.36	31.90	3	Vertical	14	2.77	-	28.10	3.64	-
AV	2.4835G	52.38	54.00	-1.62	20.64	3	Vertical	14	2.77	-	28.10	3.64	-

BT-LE(1Mbps)

2478MHz_TX



EUT_X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.478G	118.04	Inf	-Inf	86.33	3	Horizontal	33	1.62	-	28.07	3.64	-
AV	2.478G	116.70	Inf	-Inf	84.99	3	Horizontal	33	1.62	-	28.07	3.64	-
PK	2.4836G	65.59	74.00	-8.41	33.85	3	Horizontal	33	1.62	-	28.10	3.64	-
AV	2.4838G	53.76	54.00	-0.24	22.02	3	Horizontal	33	1.62	-	28.10	3.64	-

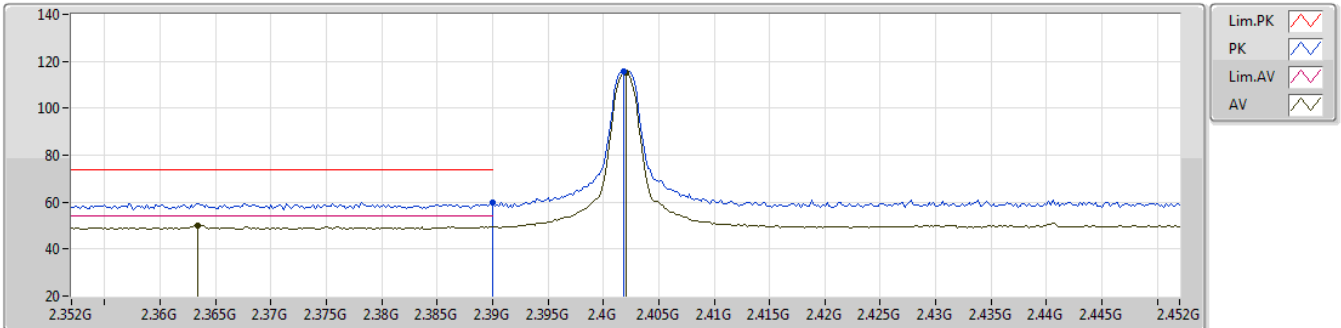


Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	AV	2.4835G	53.85	54.00	-0.15	3	Vertical	301	2.50	-

2.4-2.4835GHz_BT-LE(1Mbps)

2402MHz_TX

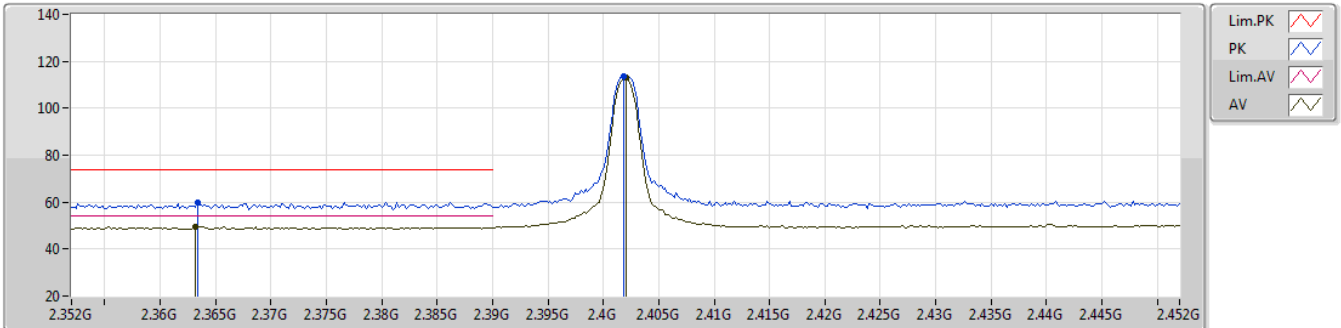


EUT_X_ANT_Z_1TX
 Setting 200
 03-J-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	59.80	74.00	-14.20	27.61	3	Vertical	300	1.62	-	28.20	3.99	-
AV	2.3634G	49.89	54.00	-4.11	17.73	3	Vertical	300	1.62	-	28.20	3.96	-
PK	2.4018G	115.72	Inf	-Inf	83.52	3	Vertical	300	1.62	-	28.20	4.00	-
AV	2.402G	115.27	Inf	-Inf	83.07	3	Vertical	300	1.62	-	28.20	4.00	-

2.4-2.4835GHz_BT-LE(1Mbps)

2402MHz_TX

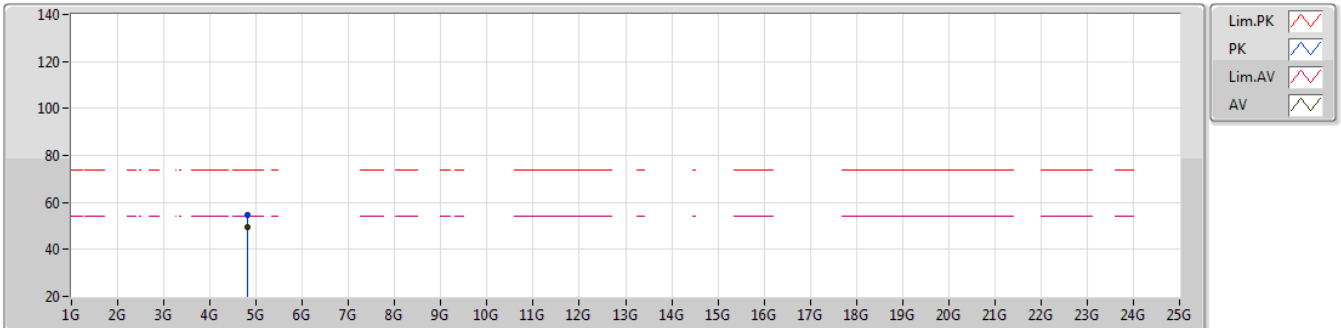


EUT X_ANT Z_1TX
 Setting 200
 03-J-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3634G	60.06	74.00	-13.94	27.90	3	Horizontal	273	1.49	-	28.20	3.96	-
AV	2.3632G	49.69	54.00	-4.31	17.53	3	Horizontal	273	1.49	-	28.20	3.96	-
PK	2.4018G	113.44	Inf	-Inf	81.24	3	Horizontal	273	1.49	-	28.20	4.00	-
AV	2.402G	112.97	Inf	-Inf	80.77	3	Horizontal	273	1.49	-	28.20	4.00	-

2.4-2.4835GHz_BT-LE(1Mbps)

2402MHz_TX

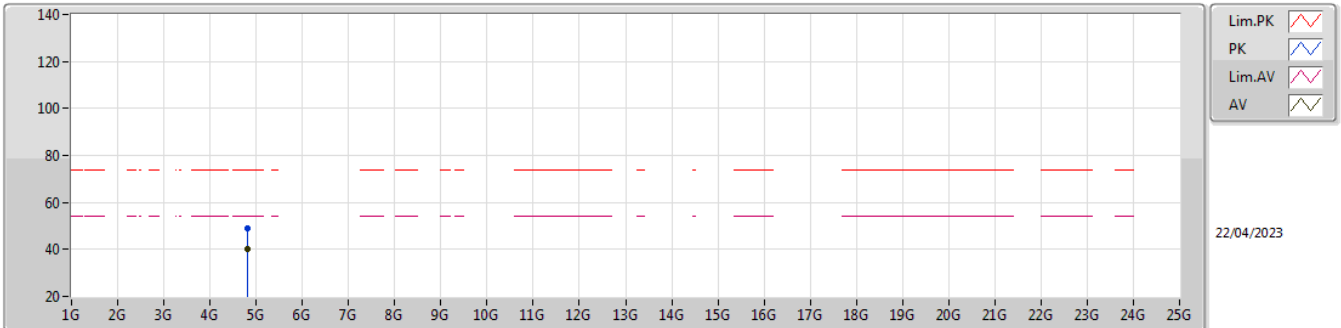


EUT X_ANT Z_1TX
 Setting 200
 03-J-G-4

Type	Freq	Level	Limit	Margin	Raw	Dist	Condition	Azimuth	Height	Comment	AF	CL	PA			
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(m)		(°)	(m)		(dB)	(dB)	(dB)			
PK	4.80354G	54.59	74.00	-19.41	49.59	3	Vertical	260	2.05	-	33.40	6.50	34.90			
AV	4.80394G	49.26	54.00	-4.74	44.26	3	Vertical	260	2.05	-	33.40	6.50	34.90			

2.4-2.4835GHz_BT-LE(1Mbps)

2402MHz_TX

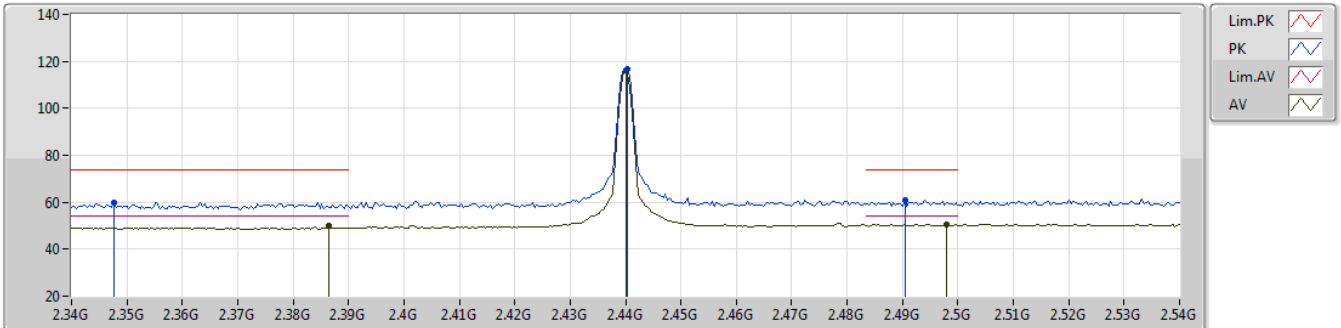


EUT X_ANT Z_1TX
 Setting 200
 03-J-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.80364G	48.88	74.00	-25.12	43.88	3	Horizontal	315	2.08	-	33.40	6.50	34.90
AV	4.8038G	40.19	54.00	-13.81	35.19	3	Horizontal	315	2.08	-	33.40	6.50	34.90

2.4-2.4835GHz_BT-LE(1Mbps)

2440MHz_TX

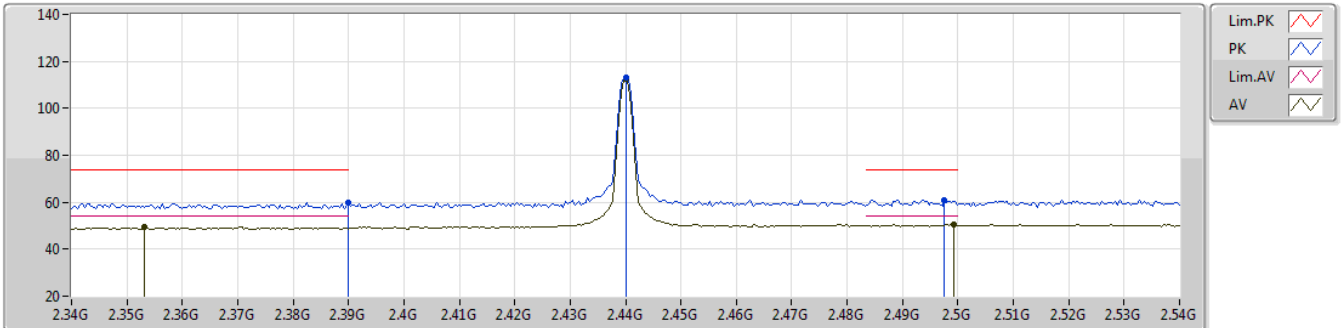


EUT_X_ANT_Z_1TX
 Setting 200
 03-J-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3476G	59.85	74.00	-14.15	27.71	3	Vertical	299	2.28	-	28.19	3.95	-
AV	2.3864G	49.80	54.00	-4.20	17.61	3	Vertical	299	2.28	-	28.20	3.99	-
PK	2.4404G	116.56	Inf	-Inf	84.32	3	Vertical	299	2.28	-	28.20	4.04	-
AV	2.44G	116.12	Inf	-Inf	83.88	3	Vertical	299	2.28	-	28.20	4.04	-
PK	2.4904G	61.09	74.00	-12.91	28.56	3	Vertical	299	2.28	-	28.44	4.09	-
AV	2.498G	50.65	54.00	-3.35	18.06	3	Vertical	299	2.28	-	28.49	4.10	-

2.4-2.4835GHz_BT-LE(1Mbps)

2440MHz_TX

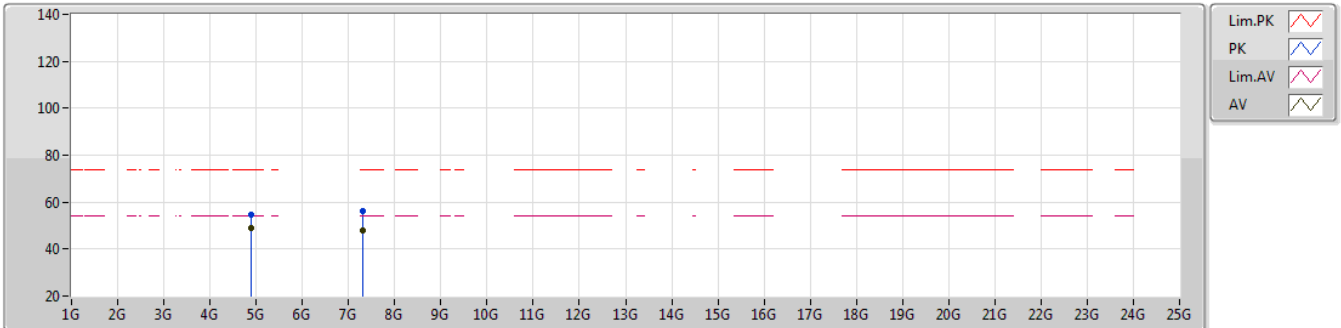


EUT_X_ANT_Z_1TX
 Setting 200
 03-J-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.39G	59.86	74.00	-14.14	27.67	3	Horizontal	318	2.21	-	28.20	3.99	-
AV	2.3532G	49.49	54.00	-4.51	17.34	3	Horizontal	318	2.21	-	28.20	3.95	-
PK	2.44G	113.15	Inf	-Inf	80.91	3	Horizontal	318	2.21	-	28.20	4.04	-
AV	2.44G	112.73	Inf	-Inf	80.49	3	Horizontal	318	2.21	-	28.20	4.04	-
PK	2.4976G	60.96	74.00	-13.04	28.37	3	Horizontal	318	2.21	-	28.49	4.10	-
AV	2.4992G	50.66	54.00	-3.34	18.06	3	Horizontal	318	2.21	-	28.50	4.10	-

2.4-2.4835GHz_BT-LE(1Mbps)

2440MHz_TX

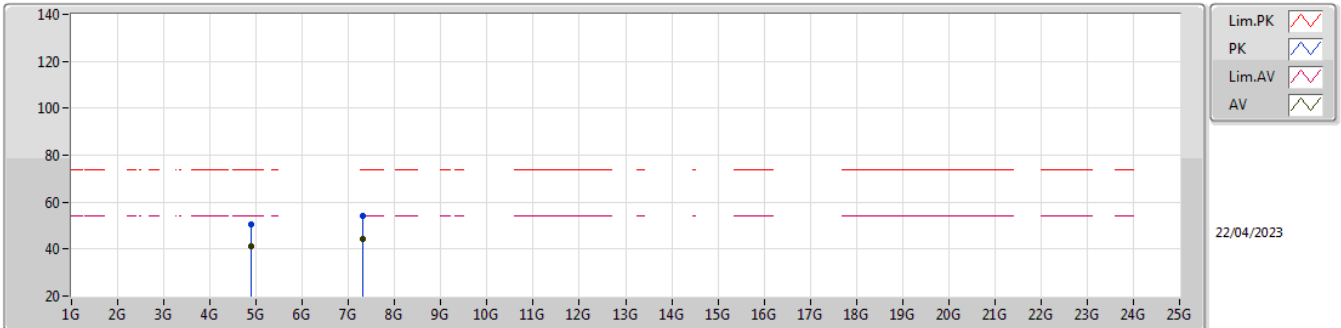


EUT X_ANT Z_1TX
 Setting 200
 03-J-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.88046G	54.44	74.00	-19.56	49.21	3	Vertical	262	2.09	-	33.58	6.54	34.89
AV	4.87992G	49.14	54.00	-4.86	43.91	3	Vertical	262	2.09	-	33.58	6.54	34.89
PK	7.3198G	56.19	74.00	-17.81	45.80	3	Vertical	46	1.80	-	36.84	8.70	35.15
AV	7.31932G	47.87	54.00	-6.13	37.48	3	Vertical	46	1.80	-	36.84	8.70	35.15

2.4-2.4835GHz_BT-LE(1Mbps)

2440MHz_TX

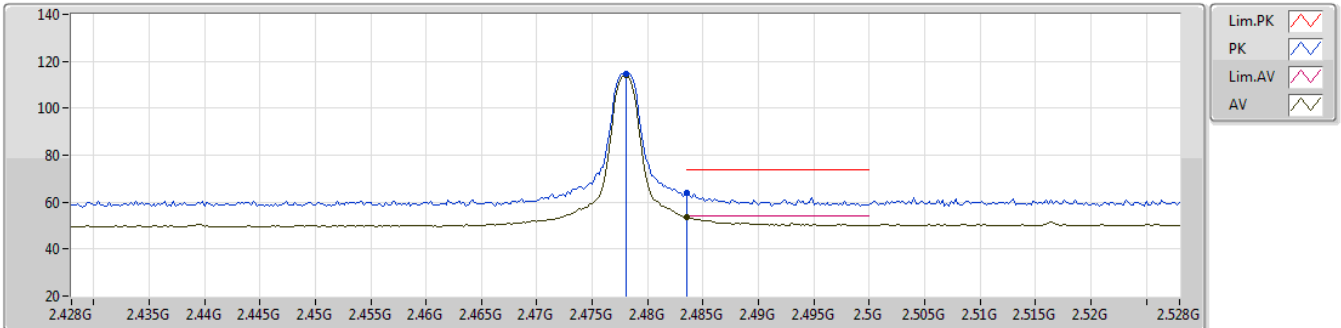


EUT_X_ANT_Z_1TX
 Setting 200
 03-J-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.87944G	50.36	74.00	-23.64	45.13	3	Horizontal	317	2.02	-	33.58	6.54	34.89
AV	4.8801G	41.15	54.00	-12.85	35.92	3	Horizontal	317	2.02	-	33.58	6.54	34.89
PK	7.31906G	54.24	74.00	-19.76	43.85	3	Horizontal	336	2.52	-	36.84	8.70	35.15
AV	7.31928G	44.29	54.00	-9.71	33.90	3	Horizontal	336	2.52	-	36.84	8.70	35.15

2.4-2.4835GHz_BT-LE(1Mbps)

2478MHz_TX

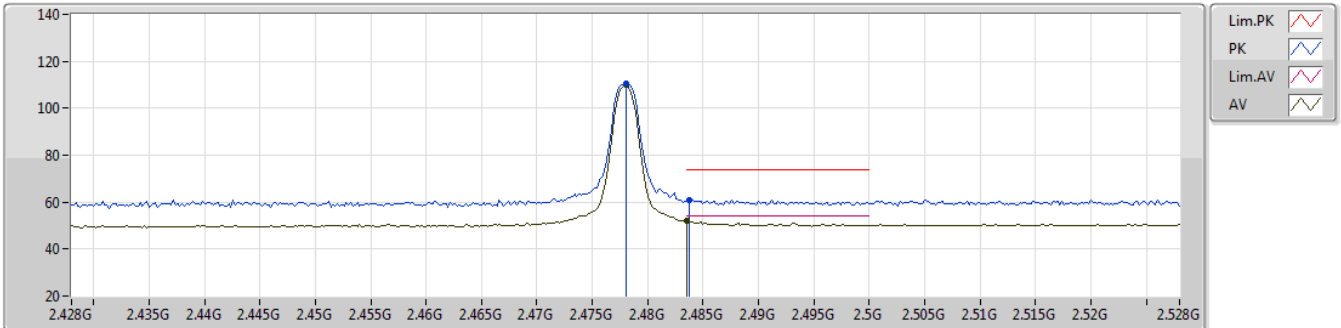


EUT_X_ANT_Z_1TX
 Setting 170
 03-J-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.478G	114.61	Inf	-Inf	82.16	3	Vertical	301	2.50	-	28.37	4.08	-
AV	2.478G	114.19	Inf	-Inf	81.74	3	Vertical	301	2.50	-	28.37	4.08	-
PK	2.4835G	63.76	74.00	-10.24	31.28	3	Vertical	301	2.50	-	28.40	4.08	-
AV	2.4835G	53.85	54.00	-0.15	21.37	3	Vertical	301	2.50	-	28.40	4.08	-

2.4-2.4835GHz_BT-LE(1Mbps)

2478MHz_TX

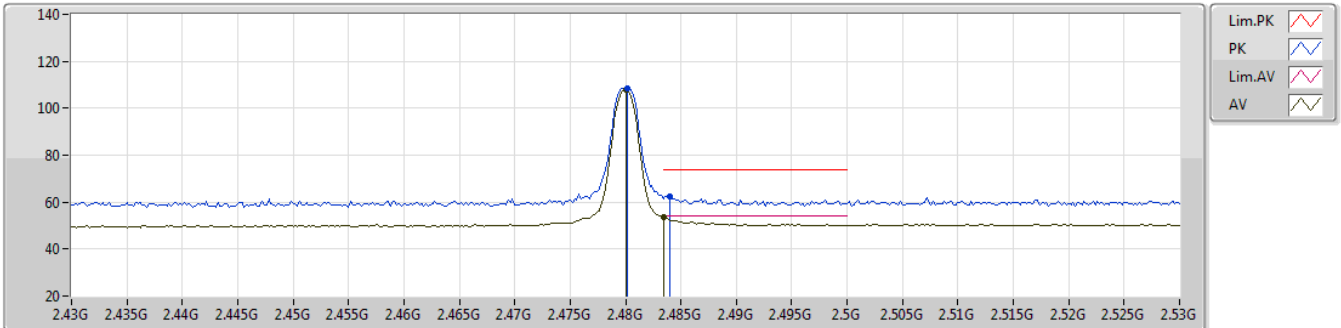


EUT_X_ANT_Z_1TX
 Setting 170
 03-J-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.478G	110.26	Inf	-Inf	77.81	3	Horizontal	268	1.77	-	28.37	4.08	-
AV	2.478G	109.83	Inf	-Inf	77.38	3	Horizontal	268	1.77	-	28.37	4.08	-
PK	2.4838G	60.92	74.00	-13.08	28.44	3	Horizontal	268	1.77	-	28.40	4.08	-
AV	2.4835G	51.91	54.00	-2.09	19.43	3	Horizontal	268	1.77	-	28.40	4.08	-

2.4-2.4835GHz_BT-LE(1Mbps)

2480MHz_TX

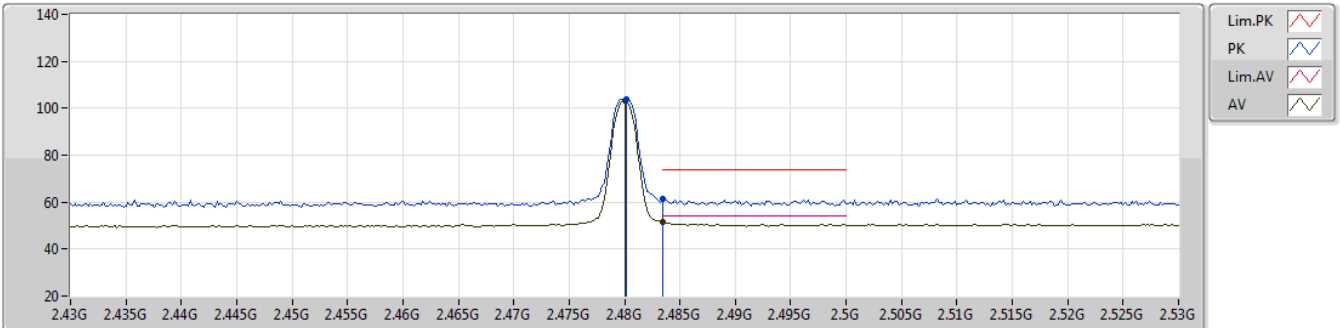


EUT X_ANT Z_1TX
 Setting 115
 03-J-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4802G	108.45	Inf	-Inf	75.99	3	Vertical	297	2.13	-	28.38	4.08	-
AV	2.48G	108.03	Inf	-Inf	75.57	3	Vertical	297	2.13	-	28.38	4.08	-
PK	2.484G	62.48	74.00	-11.52	30.00	3	Vertical	297	2.13	-	28.40	4.08	-
AV	2.4835G	53.56	54.00	-0.44	21.08	3	Vertical	297	2.13	-	28.40	4.08	-

2.4-2.4835GHz_BT-LE(1Mbps)

2480MHz_TX

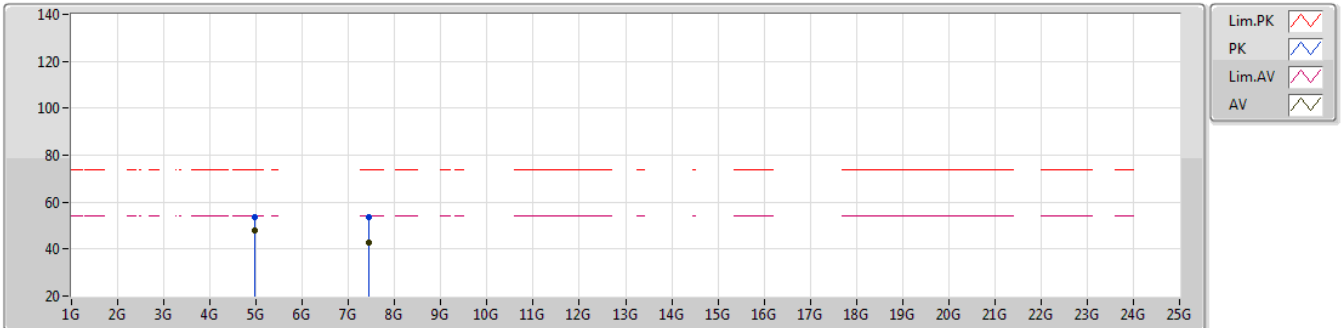


EUT X_ANT Z_1TX
 Setting 115
 03-J-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4802G	103.98	Inf	-Inf	71.52	3	Horizontal	268	1.79	-	28.38	4.08	-
AV	2.48G	103.53	Inf	-Inf	71.07	3	Horizontal	268	1.79	-	28.38	4.08	-
PK	2.4835G	61.22	74.00	-12.78	28.74	3	Horizontal	268	1.79	-	28.40	4.08	-
AV	2.4835G	51.54	54.00	-2.46	19.06	3	Horizontal	268	1.79	-	28.40	4.08	-

2.4-2.4835GHz_BT-LE(1Mbps)

2480MHz_TX

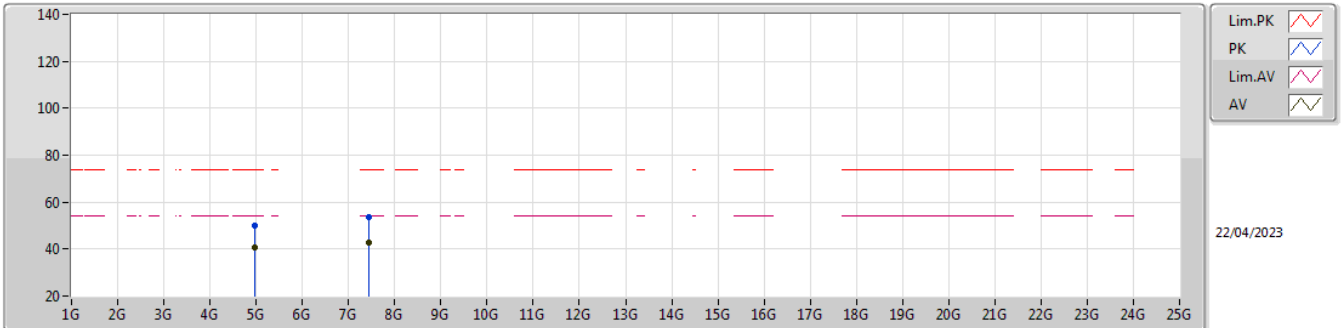


EUT X_ANT Z_1TX
Setting 115
03-J-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.96046G	53.60	74.00	-20.40	48.29	3	Vertical	262	2.26	-	33.62	6.58	34.89
AV	4.95994G	47.81	54.00	-6.19	42.50	3	Vertical	262	2.26	-	33.62	6.58	34.89
PK	7.44152G	53.43	74.00	-20.57	42.83	3	Vertical	75	1.78	-	36.98	8.82	35.20
AV	7.44068G	42.79	54.00	-11.21	32.19	3	Vertical	75	1.78	-	36.98	8.82	35.20

2.4-2.4835GHz_BT-LE(1Mbps)

2480MHz_TX



EUT X_ANT Z_1TX
 Setting 115
 03-J-G-4

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.95974G	50.02	74.00	-23.98	44.71	3	Horizontal	330	1.17	-	33.62	6.58	34.89
AV	4.9599G	40.72	54.00	-13.28	35.41	3	Horizontal	330	1.17	-	33.62	6.58	34.89
PK	7.439G	53.49	74.00	-20.51	42.89	3	Horizontal	287	1.23	-	36.98	8.82	35.20
AV	7.44013G	42.62	54.00	-11.38	32.02	3	Horizontal	287	1.23	-	36.98	8.82	35.20

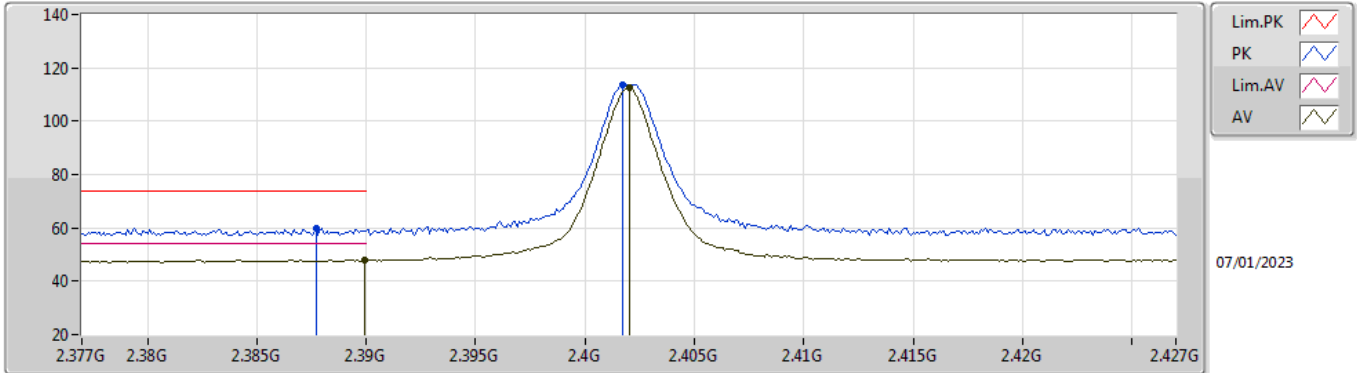


Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	AV	2.4835G	53.78	54.00	-0.22	3	Vertical	45	2.12	-

BT-LE(1Mbps)

2402MHz_TX

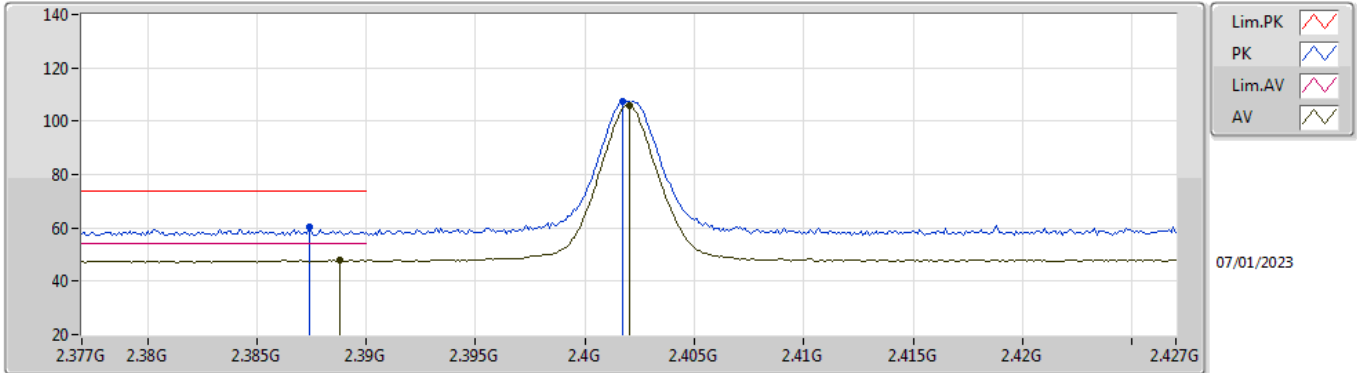


EUT_X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3877G	59.81	74.00	-14.19	28.44	3	Vertical	44	2.29	-	27.78	3.59	-
AV	2.3899G	48.15	54.00	-5.85	16.78	3	Vertical	44	2.29	-	27.78	3.59	-
PK	2.4017G	113.67	Inf	-Inf	82.27	3	Vertical	44	2.29	-	27.80	3.60	-
AV	2.402G	112.34	Inf	-Inf	80.94	3	Vertical	44	2.29	-	27.80	3.60	-

BT-LE(1Mbps)

2402MHz_TX

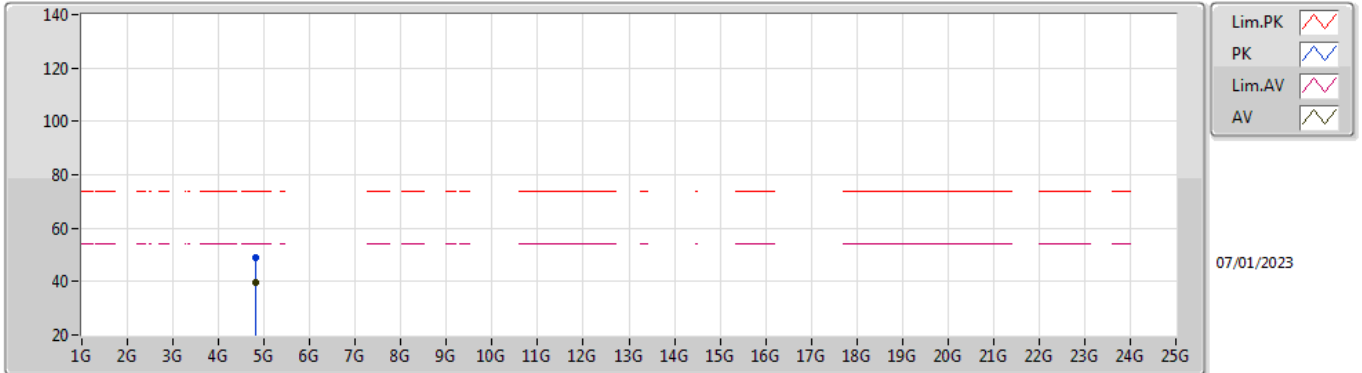


EUT_X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3874G	60.21	74.00	-13.79	28.85	3	Horizontal	22	2.84	-	27.77	3.59	-
AV	2.3888G	47.88	54.00	-6.12	16.51	3	Horizontal	22	2.84	-	27.78	3.59	-
PK	2.4017G	107.26	Inf	-Inf	75.86	3	Horizontal	22	2.84	-	27.80	3.60	-
AV	2.402G	105.95	Inf	-Inf	74.55	3	Horizontal	22	2.84	-	27.80	3.60	-

BT-LE(1Mbps)

2402MHz_TX

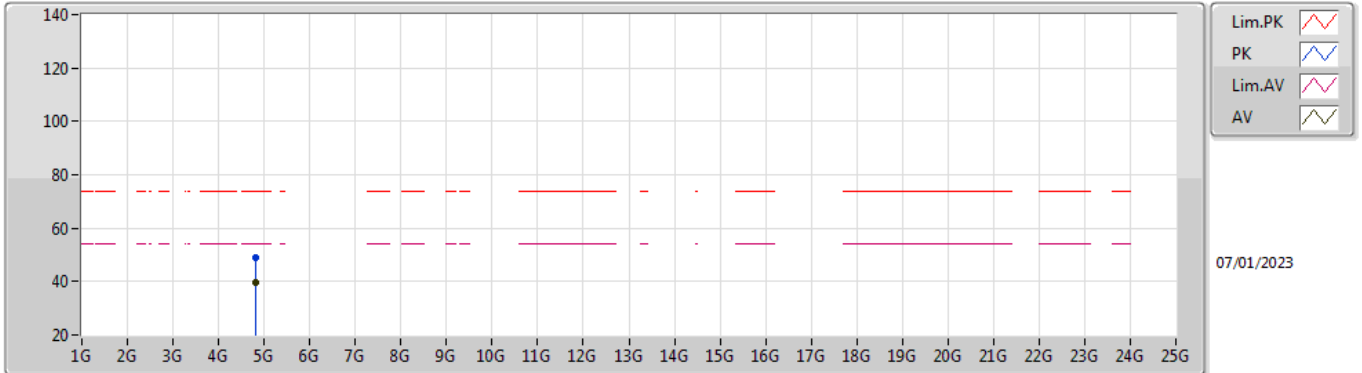


EUT X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.80334G	48.92	74.00	-25.08	43.39	3	Vertical	150	1.06	-	32.72	5.70	32.89
AV	4.80394G	39.50	54.00	-14.50	33.97	3	Vertical	150	1.06	-	32.72	5.70	32.89

BT-LE(1Mbps)

2402MHz_TX

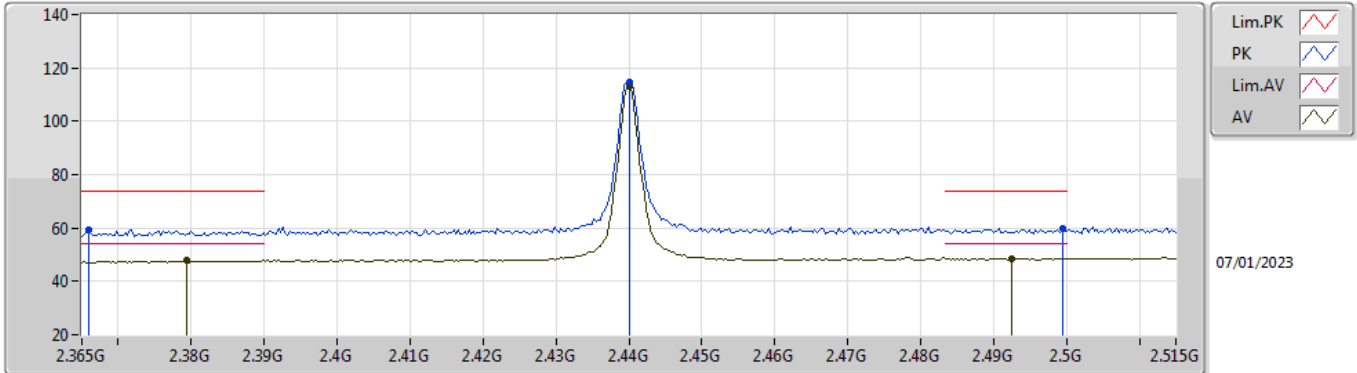


EUT_X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.80418G	49.20	74.00	-24.80	43.66	3	Horizontal	327	1.09	-	32.73	5.70	32.89
AV	4.80406G	39.74	54.00	-14.26	34.21	3	Horizontal	327	1.09	-	32.72	5.70	32.89

BT-LE(1Mbps)

2440MHz_TX

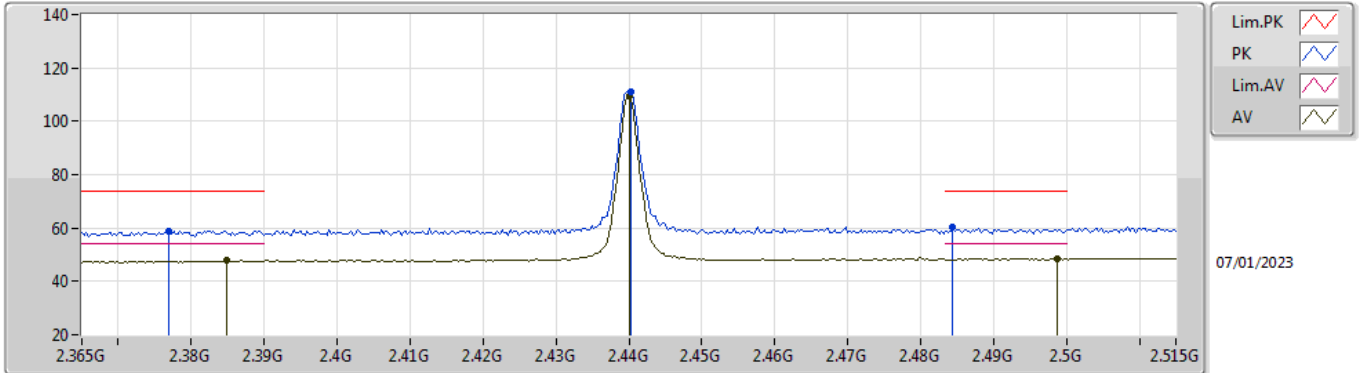


EUT_X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3659G	59.20	74.00	-14.80	27.90	3	Vertical	48	1.72	-	27.73	3.57	-
AV	2.3794G	47.81	54.00	-6.19	16.47	3	Vertical	48	1.72	-	27.76	3.58	-
PK	2.44G	114.46	Inf	-Inf	82.96	3	Vertical	48	1.72	-	27.88	3.62	-
AV	2.44G	113.10	Inf	-Inf	81.60	3	Vertical	48	1.72	-	27.88	3.62	-
PK	2.4994G	60.01	74.00	-13.99	28.16	3	Vertical	48	1.72	-	28.20	3.65	-
AV	2.4925G	48.62	54.00	-5.38	16.81	3	Vertical	48	1.72	-	28.16	3.65	-

BT-LE(1Mbps)

2440MHz_TX

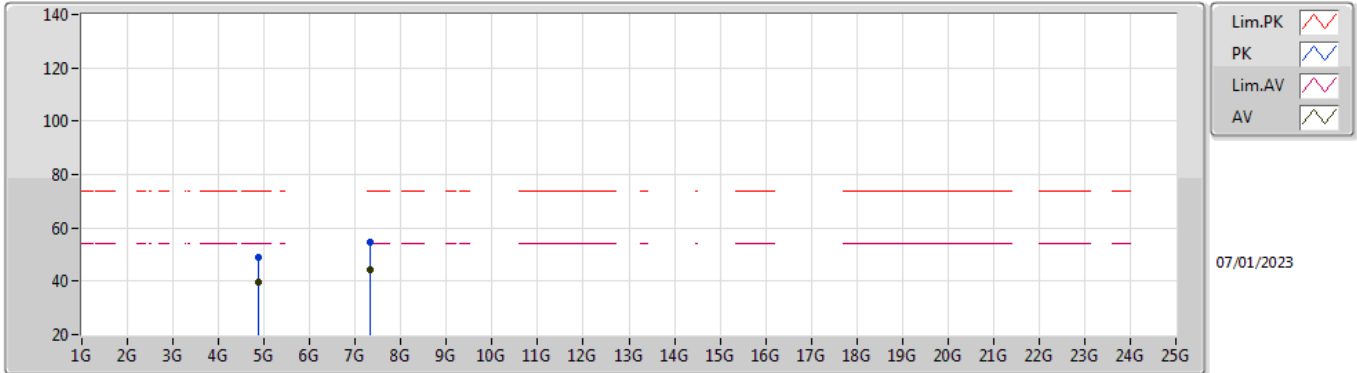


EUT_X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.377G	58.88	74.00	-15.12	27.55	3	Horizontal	8	3.00	-	27.75	3.58	-
AV	2.3848G	47.89	54.00	-6.11	16.54	3	Horizontal	8	3.00	-	27.77	3.58	-
PK	2.4403G	110.91	Inf	-Inf	79.41	3	Horizontal	8	3.00	-	27.88	3.62	-
AV	2.44G	109.56	Inf	-Inf	78.06	3	Horizontal	8	3.00	-	27.88	3.62	-
PK	2.4844G	60.09	74.00	-13.91	28.34	3	Horizontal	8	3.00	-	28.11	3.64	-
AV	2.4988G	48.68	54.00	-5.32	16.84	3	Horizontal	8	3.00	-	28.19	3.65	-

BT-LE(1Mbps)

2440MHz_TX

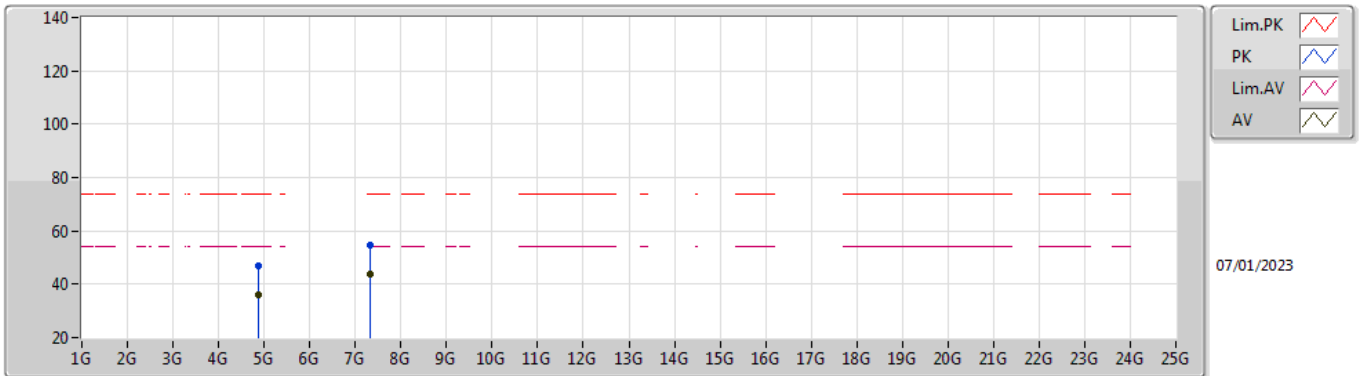


EUT_X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.87932G	49.18	74.00	-24.82	43.27	3	Vertical	302	1.80	-	33.00	5.78	32.87
AV	4.87996G	39.85	54.00	-14.15	33.94	3	Vertical	302	1.80	-	33.00	5.78	32.87
PK	7.32016G	54.87	74.00	-19.13	43.30	3	Vertical	40	1.80	-	37.60	7.16	33.19
AV	7.3194G	44.36	54.00	-9.64	32.79	3	Vertical	40	1.80	-	37.60	7.16	33.19

BT-LE(1Mbps)

2440MHz_TX

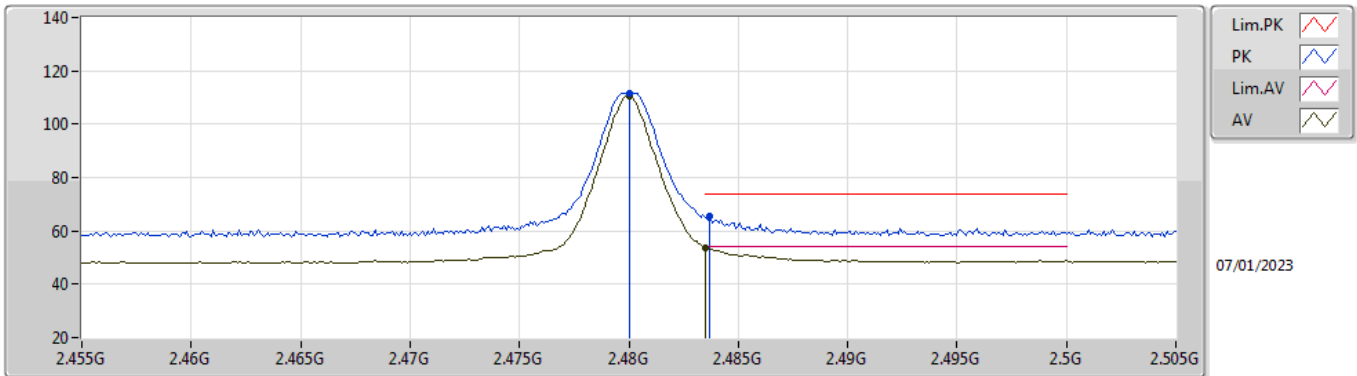


EUT_X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.87996G	47.07	74.00	-26.93	41.16	3	Horizontal	59	1.90	-	33.00	5.78	32.87
AV	4.87968G	36.23	54.00	-17.77	30.32	3	Horizontal	59	1.90	-	33.00	5.78	32.87
PK	7.32072G	54.43	74.00	-19.57	42.86	3	Horizontal	61	1.77	-	37.60	7.16	33.19
AV	7.31918G	43.73	54.00	-10.27	32.16	3	Horizontal	61	1.77	-	37.60	7.16	33.19

BT-LE(1Mbps)

2480MHz_TX

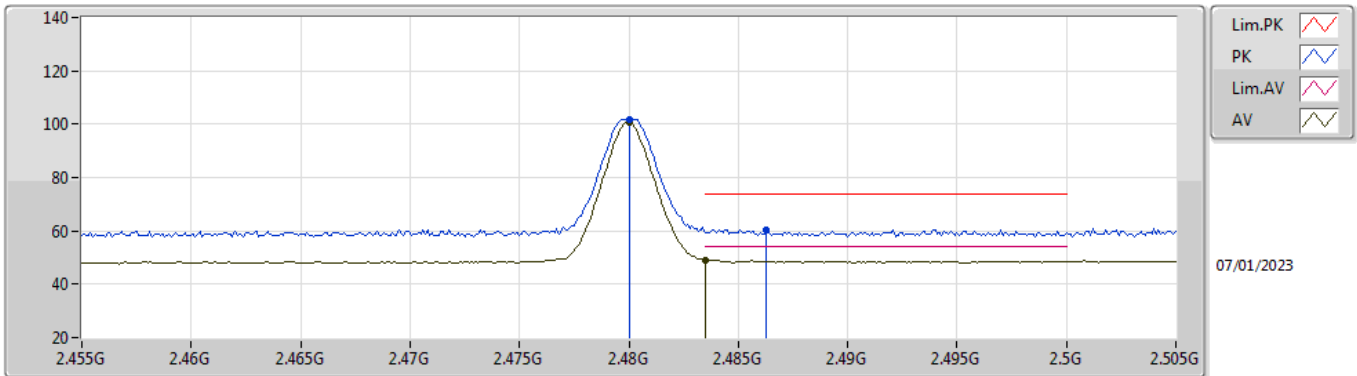


EUT_X_1TX
Setting 150
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.48G	111.77	Inf	-Inf	80.05	3	Vertical	45	2.12	-	28.08	3.64	-
AV	2.48G	110.45	Inf	-Inf	78.73	3	Vertical	45	2.12	-	28.08	3.64	-
PK	2.4837G	65.46	74.00	-8.54	33.72	3	Vertical	45	2.12	-	28.10	3.64	-
AV	2.4835G	53.78	54.00	-0.22	22.04	3	Vertical	45	2.12	-	28.10	3.64	-

BT-LE(1Mbps)

2480MHz_TX

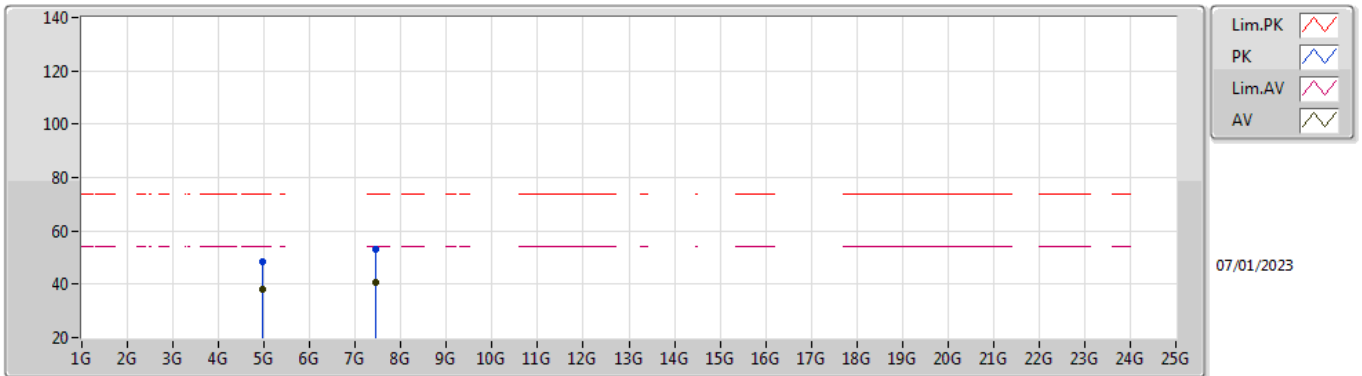


EUT_X_1TX
Setting 150
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.48G	101.97	Inf	-Inf	70.25	3	Horizontal	132	1.80	-	28.08	3.64	-
AV	2.48G	100.59	Inf	-Inf	68.87	3	Horizontal	132	1.80	-	28.08	3.64	-
PK	2.4863G	60.35	74.00	-13.65	28.59	3	Horizontal	132	1.80	-	28.12	3.64	-
AV	2.4835G	49.17	54.00	-4.83	17.43	3	Horizontal	132	1.80	-	28.10	3.64	-

BT-LE(1Mbps)

2480MHz_TX

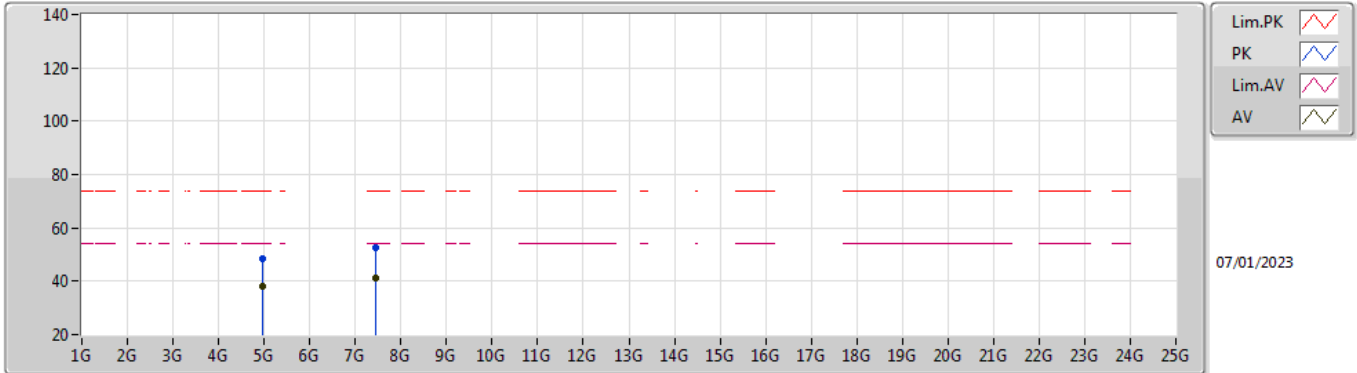


EUT_X_1TX
Setting 150
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.95934G	48.34	74.00	-25.66	42.32	3	Vertical	17	1.28	-	33.02	5.86	32.86
AV	4.95984G	37.86	54.00	-16.14	31.84	3	Vertical	17	1.28	-	33.02	5.86	32.86
PK	7.43978G	53.13	74.00	-20.87	41.66	3	Vertical	335	1.20	-	37.50	7.22	33.25
AV	7.43968G	40.63	54.00	-13.37	29.16	3	Vertical	335	1.20	-	37.50	7.22	33.25

BT-LE(1Mbps)

2480MHz_TX

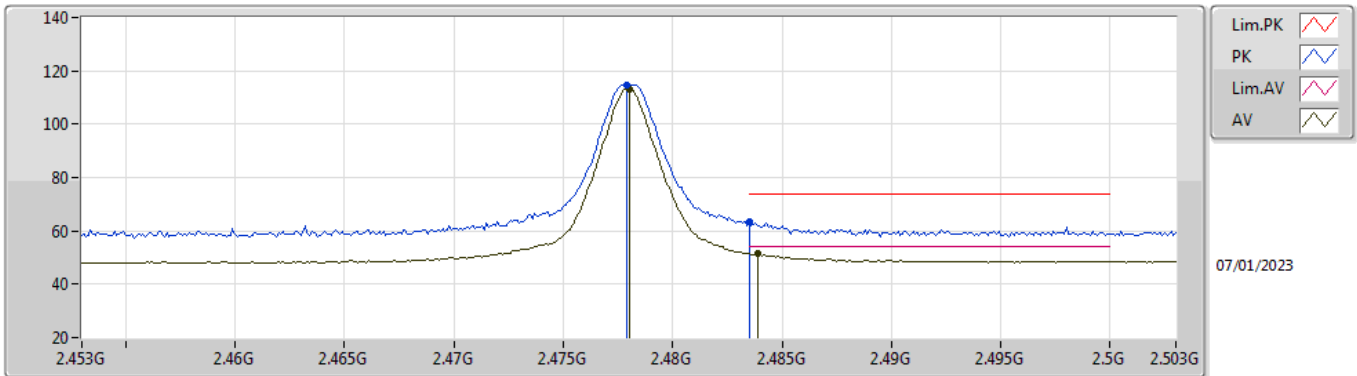


EUT_X_1TX
Setting 150
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.96022G	48.46	74.00	-25.54	42.44	3	Horizontal	105	1.29	-	33.02	5.86	32.86
AV	4.9598G	37.90	54.00	-16.10	31.88	3	Horizontal	105	1.29	-	33.02	5.86	32.86
PK	7.43816G	52.68	74.00	-21.32	41.21	3	Horizontal	221	1.92	-	37.50	7.22	33.25
AV	7.44052G	40.95	54.00	-13.05	29.48	3	Horizontal	221	1.92	-	37.50	7.22	33.25

BT-LE(1Mbps)

2478MHz_TX

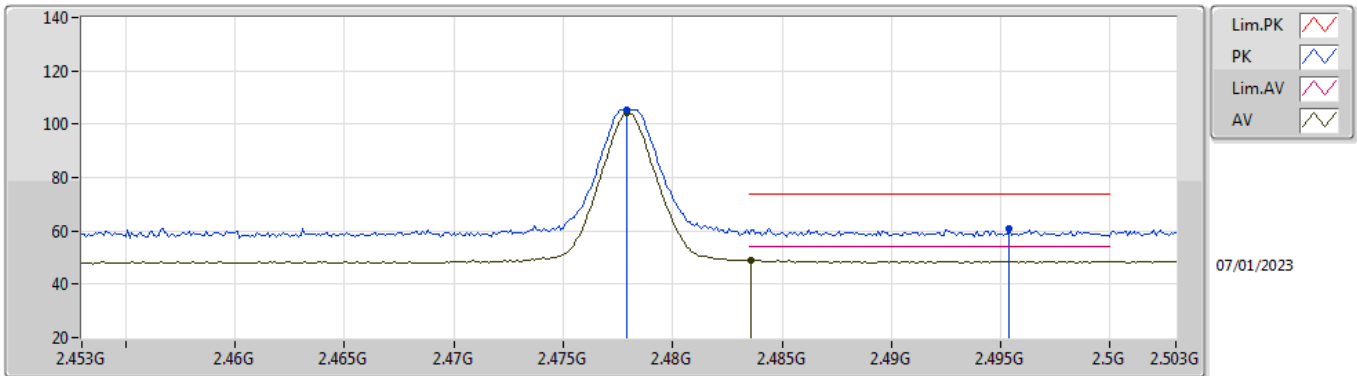


EUT_X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4779G	114.68	Inf	-Inf	82.97	3	Vertical	35	1.80	-	28.07	3.64	-
AV	2.478G	113.36	Inf	-Inf	81.65	3	Vertical	35	1.80	-	28.07	3.64	-
PK	2.4835G	63.25	74.00	-10.75	31.51	3	Vertical	35	1.80	-	28.10	3.64	-
AV	2.4839G	51.54	54.00	-2.46	19.80	3	Vertical	35	1.80	-	28.10	3.64	-

BT-LE(1Mbps)

2478MHz_TX



EUT_X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4779G	105.53	Inf	-Inf	73.82	3	Horizontal	131	1.79	-	28.07	3.64	-
AV	2.4779G	104.13	Inf	-Inf	72.42	3	Horizontal	131	1.79	-	28.07	3.64	-
PK	2.4954G	60.96	74.00	-13.04	29.14	3	Horizontal	131	1.79	-	28.17	3.65	-
AV	2.4836G	49.01	54.00	-4.99	17.27	3	Horizontal	131	1.79	-	28.10	3.64	-

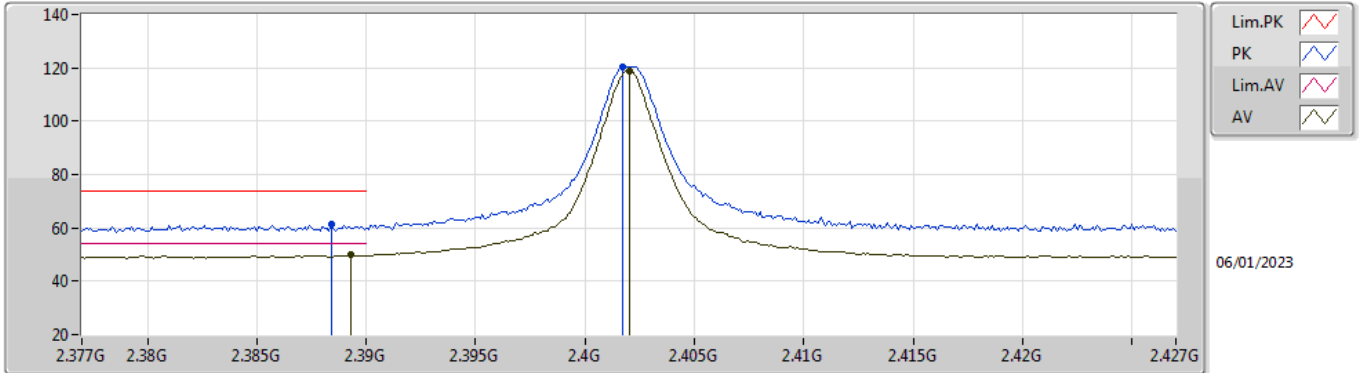


Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	AV	2.4835G	53.98	54.00	-0.02	3	Horizontal	360	1.98	-

BT-LE(1Mbps)

2402MHz_TX

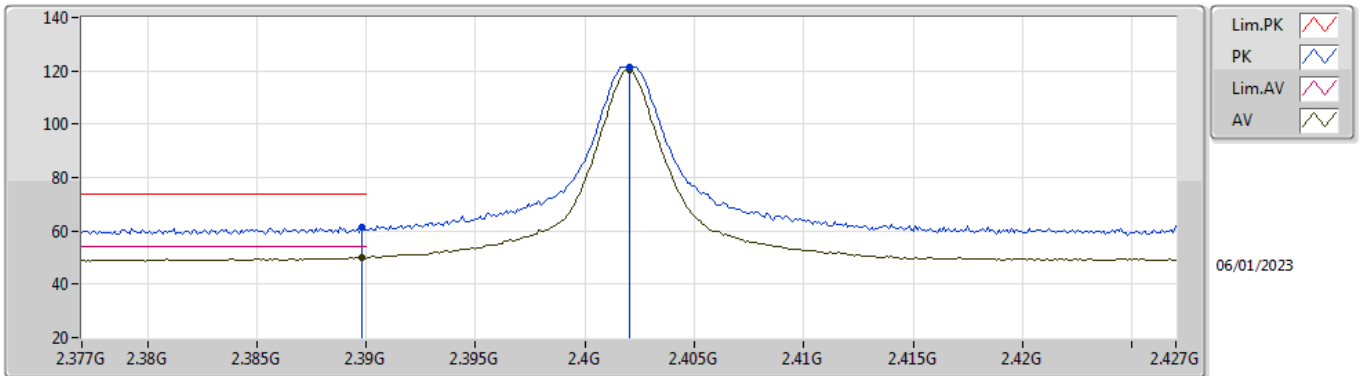


EUT_Z_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3884G	61.15	74.00	-12.85	28.42	3	Vertical	4	1.80	-	27.65	5.08	-
AV	2.3893G	49.94	54.00	-4.06	17.21	3	Vertical	4	1.80	-	27.64	5.09	-
PK	2.4017G	120.23	Inf	-Inf	87.52	3	Vertical	4	1.80	-	27.60	5.11	-
AV	2.402G	118.88	Inf	-Inf	86.17	3	Vertical	4	1.80	-	27.60	5.11	-

BT-LE(1Mbps)

2402MHz_TX

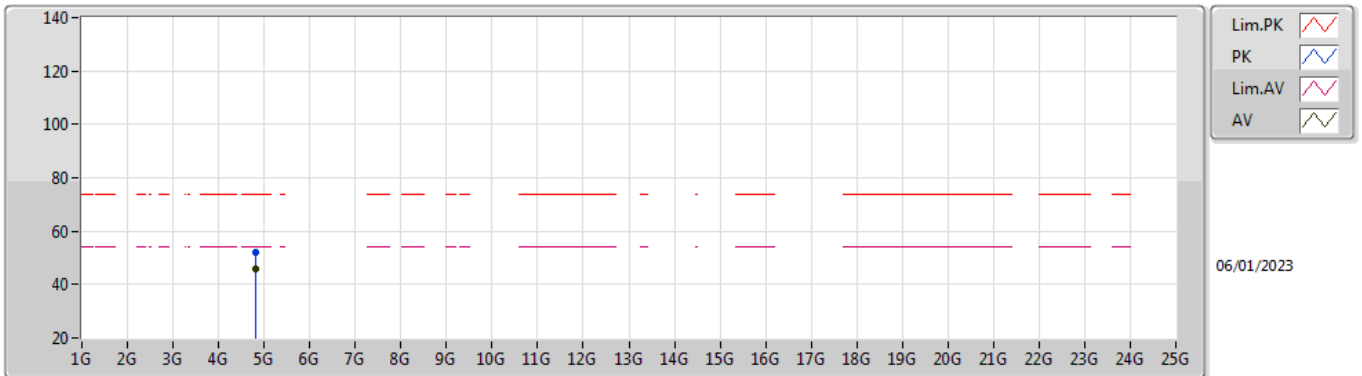


EUT_Z_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	61.40	74.00	-12.60	28.67	3	Horizontal	360	1.80	-	27.64	5.09	-
AV	2.3898G	50.06	54.00	-3.94	17.33	3	Horizontal	360	1.80	-	27.64	5.09	-
PK	2.402G	121.54	Inf	-Inf	88.83	3	Horizontal	360	1.80	-	27.60	5.11	-
AV	2.402G	120.14	Inf	-Inf	87.43	3	Horizontal	360	1.80	-	27.60	5.11	-

BT-LE(1Mbps)

2402MHz_TX

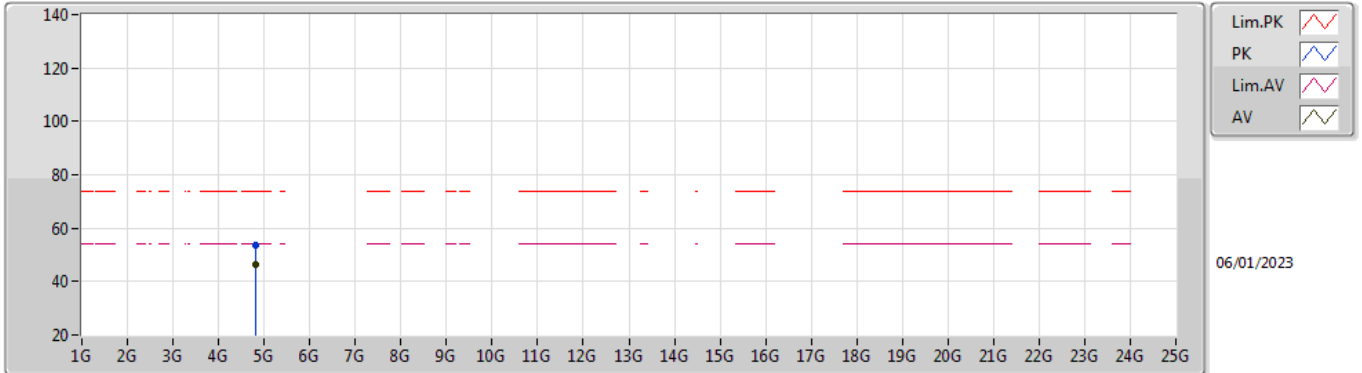


EUT X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.8045G	52.32	74.00	-21.68	46.79	3	Vertical	21	1.92	-	31.31	6.75	32.53
AV	4.80396G	45.64	54.00	-8.36	40.11	3	Vertical	21	1.92	-	31.31	6.75	32.53

BT-LE(1Mbps)

2402MHz_TX

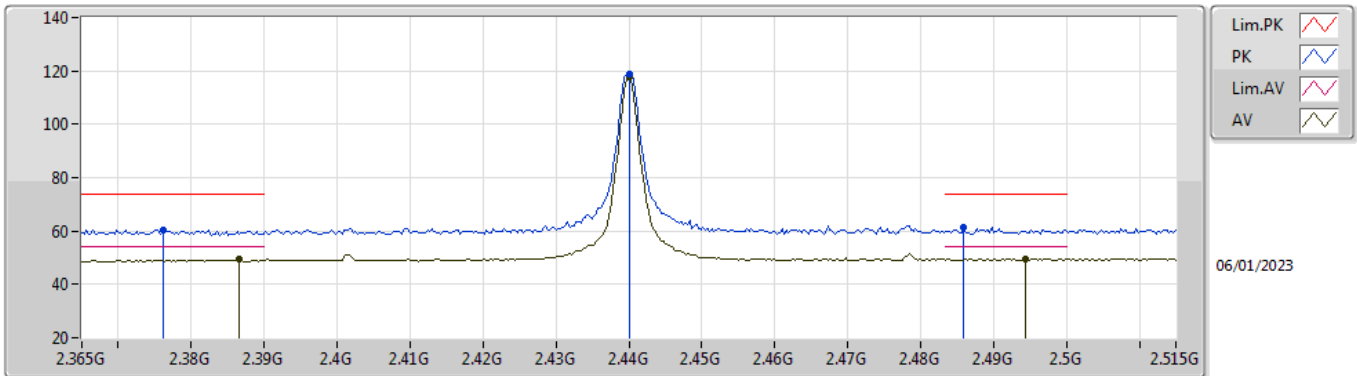


EUT X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.80443G	53.56	74.00	-20.44	48.03	3	Horizontal	347	1.65	-	31.31	6.75	32.53
AV	4.80391G	46.50	54.00	-7.50	40.97	3	Horizontal	347	1.65	-	31.31	6.75	32.53

BT-LE(1Mbps)

2440MHz_TX

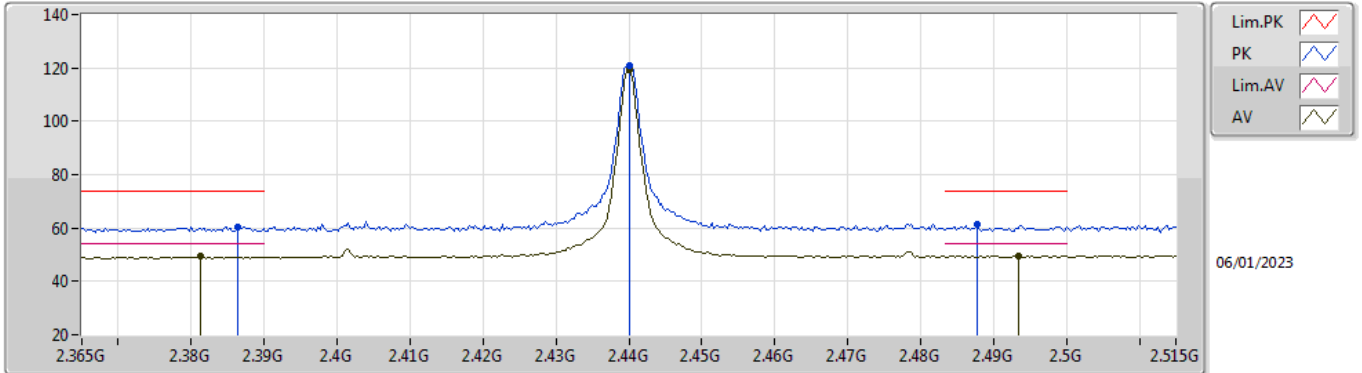


EUT_Z_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3761G	60.54	74.00	-13.46	27.78	3	Vertical	4	1.80	-	27.70	5.06	-
AV	2.3866G	49.23	54.00	-4.77	16.50	3	Vertical	4	1.80	-	27.65	5.08	-
PK	2.44G	119.04	Inf	-Inf	86.33	3	Vertical	4	1.80	-	27.60	5.11	-
AV	2.44G	117.56	Inf	-Inf	84.85	3	Vertical	4	1.80	-	27.60	5.11	-
PK	2.4859G	61.39	74.00	-12.61	28.68	3	Vertical	4	1.80	-	27.60	5.11	-
AV	2.4943G	49.66	54.00	-4.34	16.95	3	Vertical	4	1.80	-	27.60	5.11	-

BT-LE(1Mbps)

2440MHz_TX

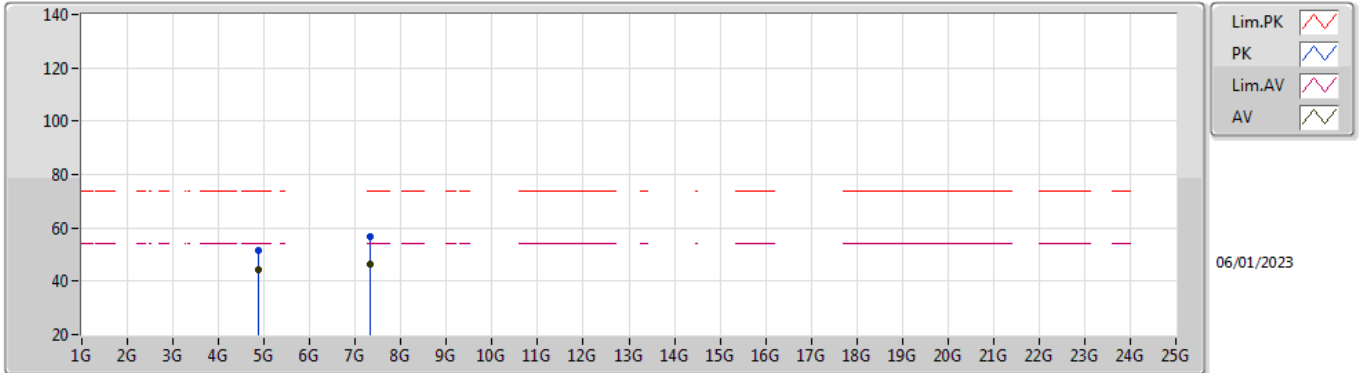


EUT_Z_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3863G	60.35	74.00	-13.65	27.62	3	Horizontal	360	1.80	-	27.65	5.08	-
AV	2.3812G	49.29	54.00	-4.71	16.54	3	Horizontal	360	1.80	-	27.68	5.07	-
PK	2.44G	120.87	Inf	-Inf	88.16	3	Horizontal	360	1.80	-	27.60	5.11	-
AV	2.44G	119.45	Inf	-Inf	86.74	3	Horizontal	360	1.80	-	27.60	5.11	-
PK	2.4877G	61.21	74.00	-12.79	28.50	3	Horizontal	360	1.80	-	27.60	5.11	-
AV	2.4934G	49.71	54.00	-4.29	17.00	3	Horizontal	360	1.80	-	27.60	5.11	-

BT-LE(1Mbps)

2440MHz_TX

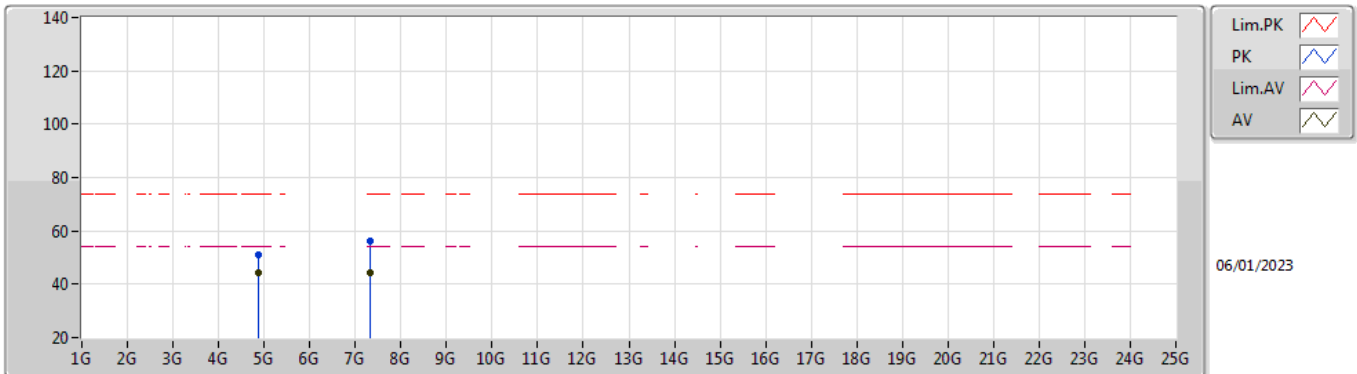


EUT_X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.88042G	51.31	74.00	-22.69	45.63	3	Vertical	22	2.25	-	31.40	6.78	32.50
AV	4.87992G	44.32	54.00	-9.68	38.64	3	Vertical	22	2.25	-	31.40	6.78	32.50
PK	7.3193G	56.62	74.00	-17.38	45.30	3	Vertical	268	1.80	-	36.70	8.07	33.45
AV	7.31934G	46.36	54.00	-7.64	35.04	3	Vertical	268	1.80	-	36.70	8.07	33.45

BT-LE(1Mbps)

2440MHz_TX

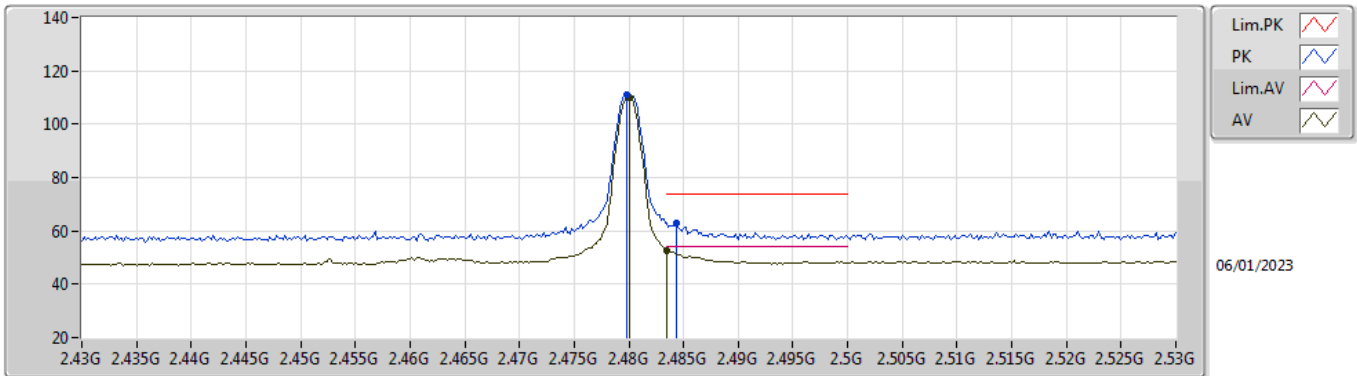


EUT_X_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.88032G	51.15	74.00	-22.85	45.47	3	Horizontal	16	1.63	-	31.40	6.78	32.50
AV	4.87984G	44.12	54.00	-9.88	38.44	3	Horizontal	16	1.63	-	31.40	6.78	32.50
PK	7.32072G	56.16	74.00	-17.84	44.84	3	Horizontal	27	1.04	-	36.70	8.07	33.45
AV	7.31932G	44.12	54.00	-9.88	32.80	3	Horizontal	27	1.04	-	36.70	8.07	33.45

BT-LE(1Mbps)

2480MHz_TX

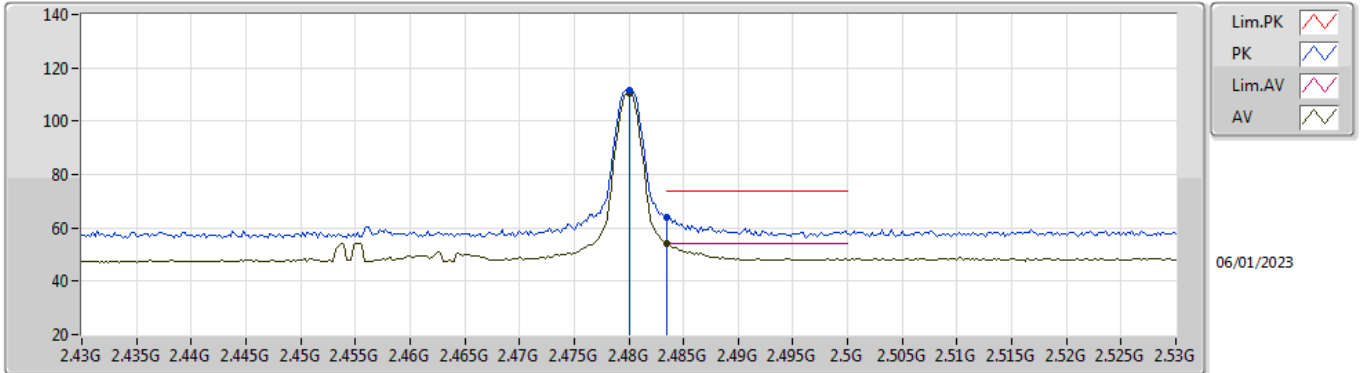


EUT_Z_1TX
Setting 95
04-K-R-7

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4798G	110.81	Inf	-Inf	79.71	3	Vertical	8	1.92	-	27.82	3.28	-
AV	2.48G	109.99	Inf	-Inf	78.89	3	Vertical	8	1.92	-	27.82	3.28	-
PK	2.4844G	62.87	74.00	-11.13	31.75	3	Vertical	8	1.92	-	27.84	3.28	-
AV	2.4835G	52.81	54.00	-1.19	21.70	3	Vertical	8	1.92	-	27.83	3.28	-

BT-LE(1Mbps)

2480MHz_TX

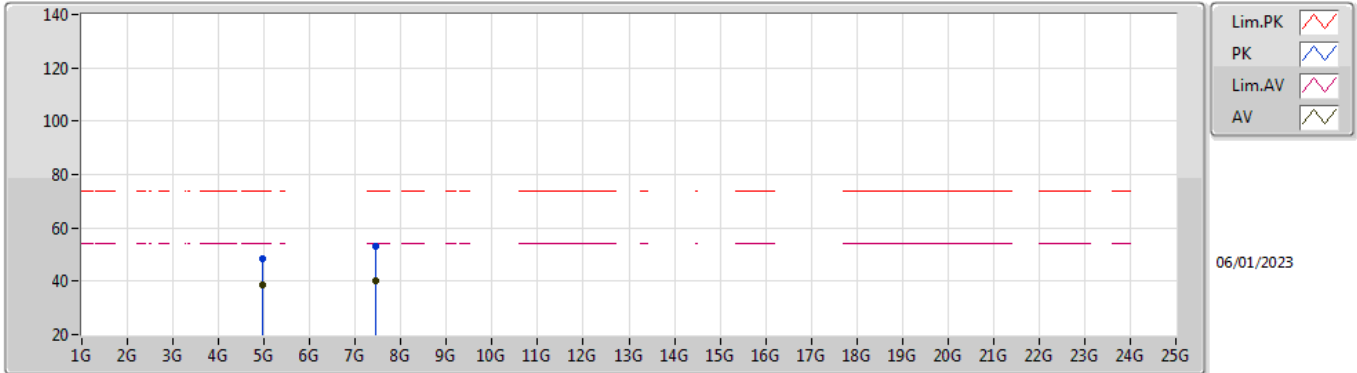


EUT_Z_1TX
Setting 95
04-K-R-7

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.48G	111.37	Inf	-Inf	80.27	3	Horizontal	360	1.98	-	27.82	3.28	-
AV	2.48G	110.56	Inf	-Inf	79.46	3	Horizontal	360	1.98	-	27.82	3.28	-
PK	2.4835G	63.81	74.00	-10.19	32.70	3	Horizontal	360	1.98	-	27.83	3.28	-
AV	2.4835G	53.98	54.00	-0.02	22.87	3	Horizontal	360	1.98	-	27.83	3.28	-

BT-LE(1Mbps)

2480MHz_TX

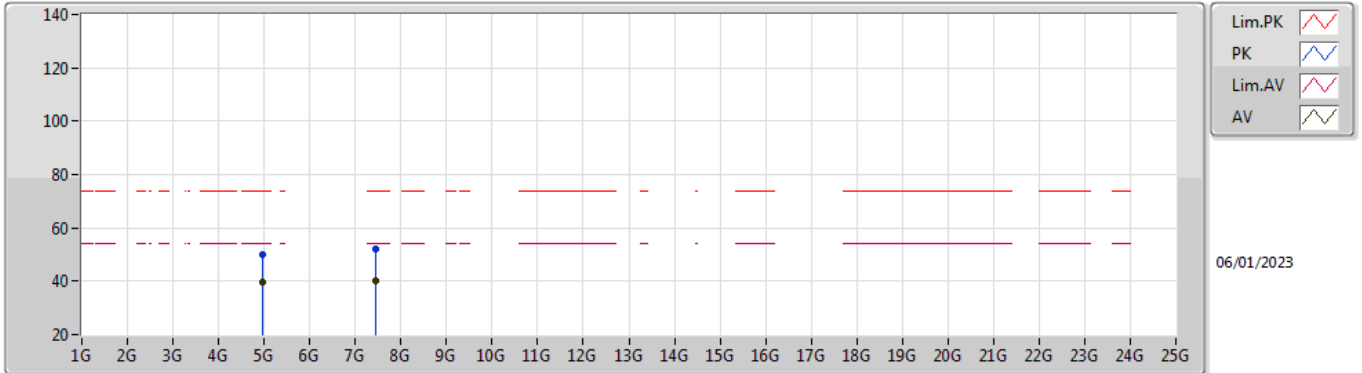


EUT_X_1TX
Setting 95
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.96024G	48.54	74.00	-25.46	42.90	3	Vertical	20	1.80	-	32.92	5.30	32.58
AV	4.95984G	38.63	54.00	-15.37	32.99	3	Vertical	20	1.80	-	32.92	5.30	32.58
PK	7.43972G	52.90	74.00	-21.10	41.72	3	Vertical	357	1.40	-	37.42	7.02	33.26
AV	7.43528G	40.04	54.00	-13.96	28.85	3	Vertical	357	1.40	-	37.43	7.02	33.26

BT-LE(1Mbps)

2480MHz_TX

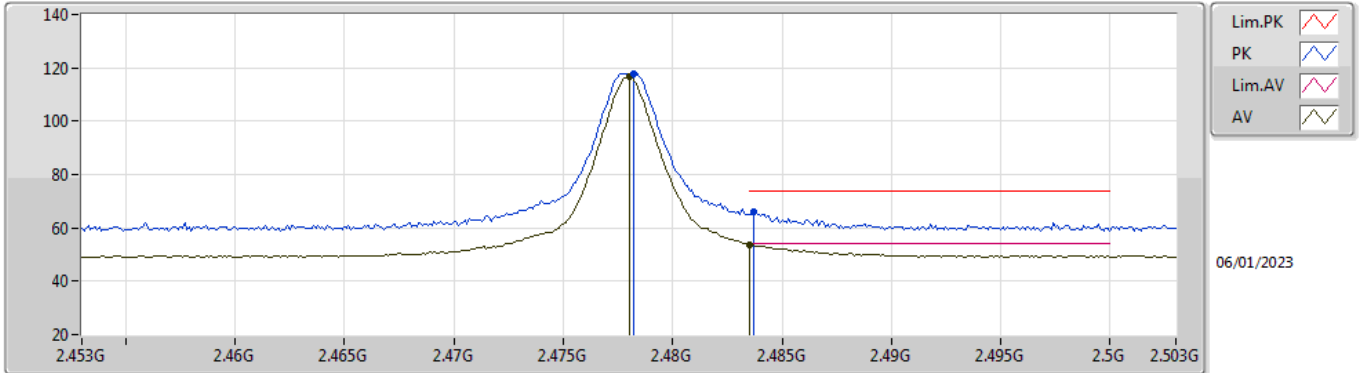


EUT_X_1TX
Setting 95
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.96064G	50.04	74.00	-23.96	44.40	3	Horizontal	18	1.43	-	32.92	5.30	32.58
AV	4.95994G	39.79	54.00	-14.21	34.15	3	Horizontal	18	1.43	-	32.92	5.30	32.58
PK	7.43904G	52.32	74.00	-21.68	41.14	3	Horizontal	212	1.90	-	37.42	7.02	33.26
AV	7.43986G	40.31	54.00	-13.69	29.13	3	Horizontal	212	1.90	-	37.42	7.02	33.26

BT-LE(1Mbps)

2478MHz_TX

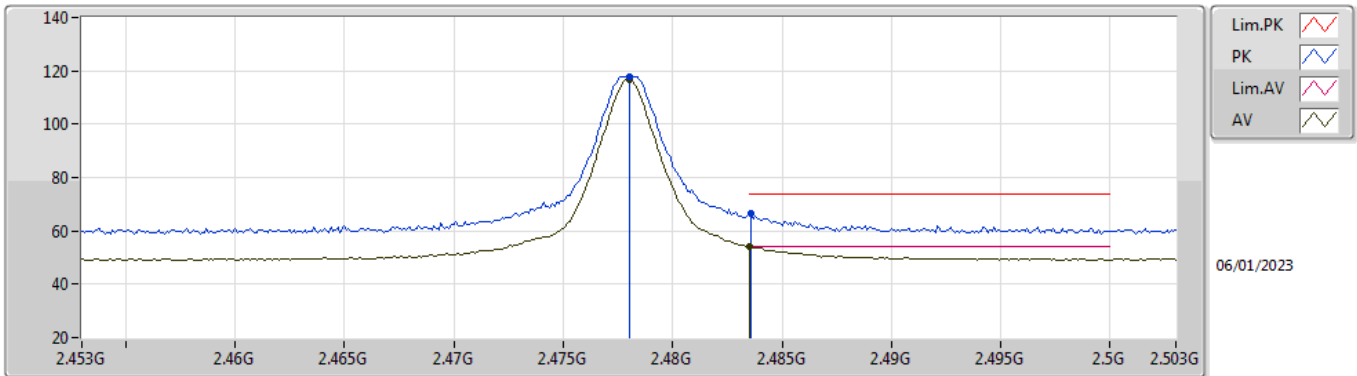


EUT_Z_1TX
Setting 155
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4782G	117.87	Inf	-Inf	85.16	3	Vertical	356	1.77	-	27.60	5.11	-
AV	2.478G	116.59	Inf	-Inf	83.88	3	Vertical	356	1.77	-	27.60	5.11	-
PK	2.4837G	65.90	74.00	-8.10	33.19	3	Vertical	356	1.77	-	27.60	5.11	-
AV	2.4835G	53.87	54.00	-0.13	21.16	3	Vertical	356	1.77	-	27.60	5.11	-

BT-LE(1Mbps)

2478MHz_TX



EUT_Z_1TX
Setting 155
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.478G	117.99	Inf	-Inf	85.28	3	Horizontal	360	1.76	-	27.60	5.11	-
AV	2.478G	116.67	Inf	-Inf	83.96	3	Horizontal	360	1.76	-	27.60	5.11	-
PK	2.4836G	66.66	74.00	-7.34	33.95	3	Horizontal	360	1.76	-	27.60	5.11	-
AV	2.4835G	53.91	54.00	-0.09	21.20	3	Horizontal	360	1.76	-	27.60	5.11	-

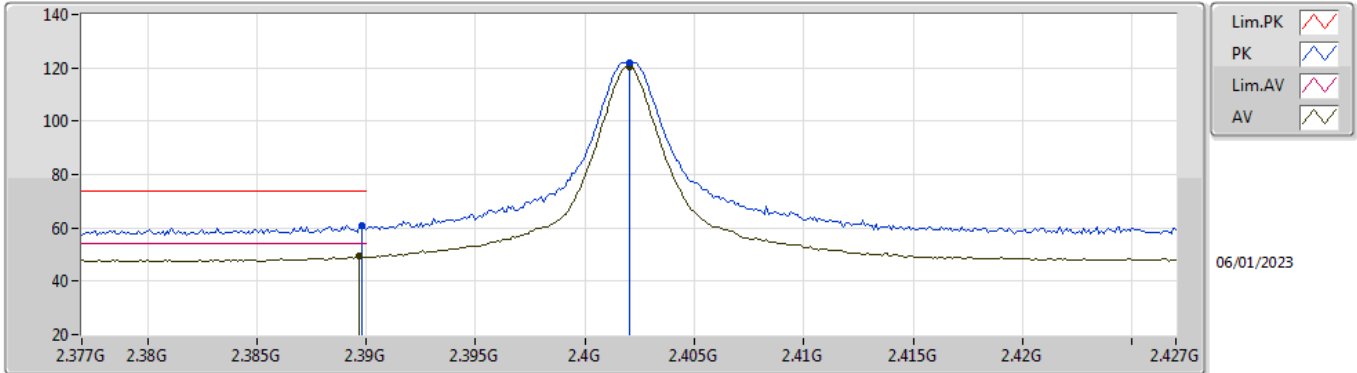


Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-
BT-LE(1Mbps)	Pass	AV	2.4835G	53.93	54.00	-0.07	3	Horizontal	0	1.51	-

BT-LE(1Mbps)

2402MHz_TX

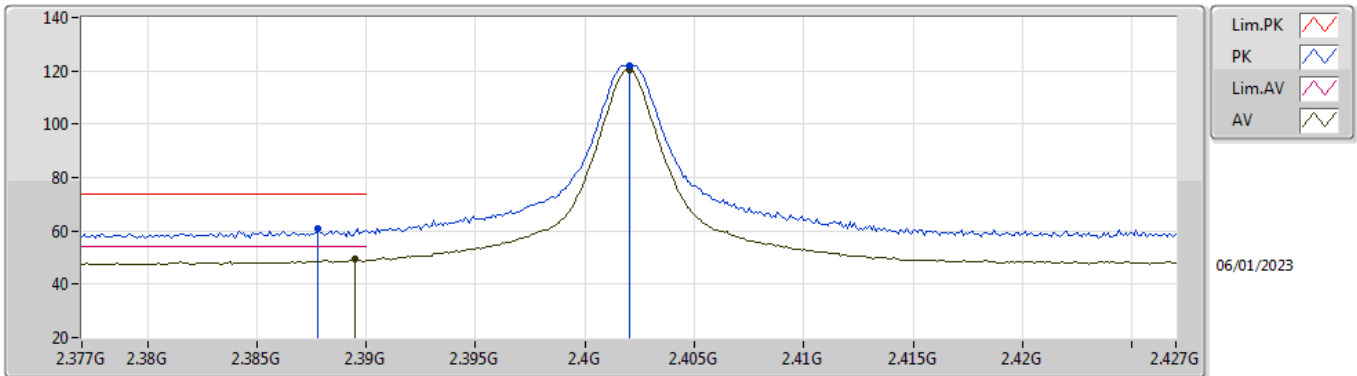


EUT_Z_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3898G	60.87	74.00	-13.13	29.50	3	Vertical	353	1.80	-	27.78	3.59	-
AV	2.3897G	49.32	54.00	-4.68	17.95	3	Vertical	353	1.80	-	27.78	3.59	-
PK	2.402G	121.85	Inf	-Inf	90.45	3	Vertical	353	1.80	-	27.80	3.60	-
AV	2.402G	120.49	Inf	-Inf	89.09	3	Vertical	353	1.80	-	27.80	3.60	-

BT-LE(1Mbps)

2402MHz_TX

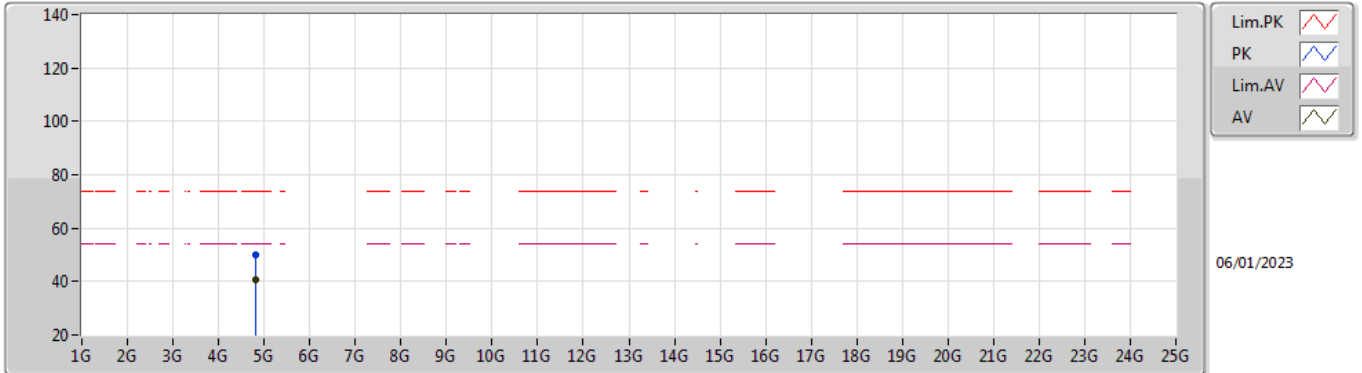


EUT_Z_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3878G	60.74	74.00	-13.26	29.37	3	Horizontal	353	1.80	-	27.78	3.59	-
AV	2.3895G	49.36	54.00	-4.64	17.99	3	Horizontal	353	1.80	-	27.78	3.59	-
PK	2.402G	121.83	Inf	-Inf	90.43	3	Horizontal	353	1.80	-	27.80	3.60	-
AV	2.402G	120.49	Inf	-Inf	89.09	3	Horizontal	353	1.80	-	27.80	3.60	-

BT-LE(1Mbps)

2402MHz_TX

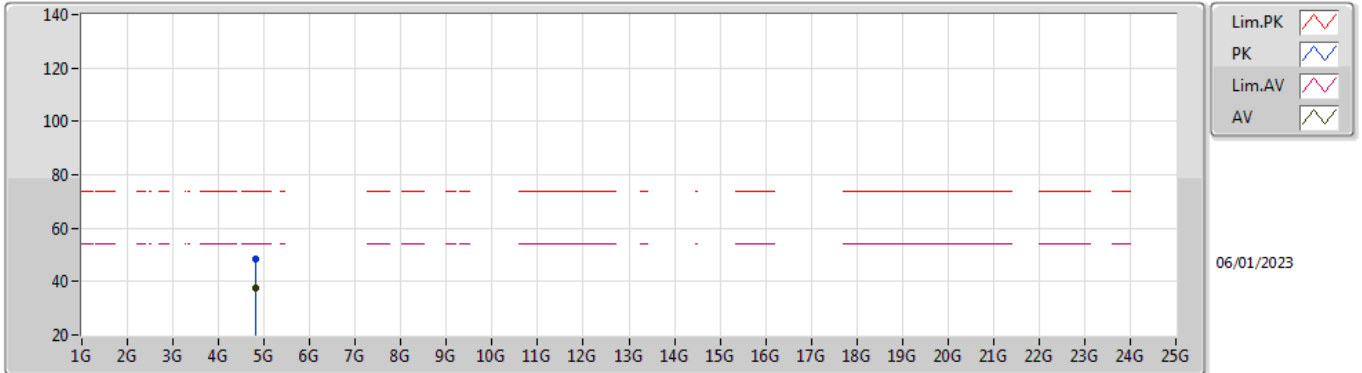


EUT_Z_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.80334G	50.09	74.00	-23.91	44.56	3	Vertical	360	1.80	-	32.72	5.70	32.89
AV	4.80382G	40.65	54.00	-13.35	35.12	3	Vertical	360	1.80	-	32.72	5.70	32.89

BT-LE(1Mbps)

2402MHz_TX

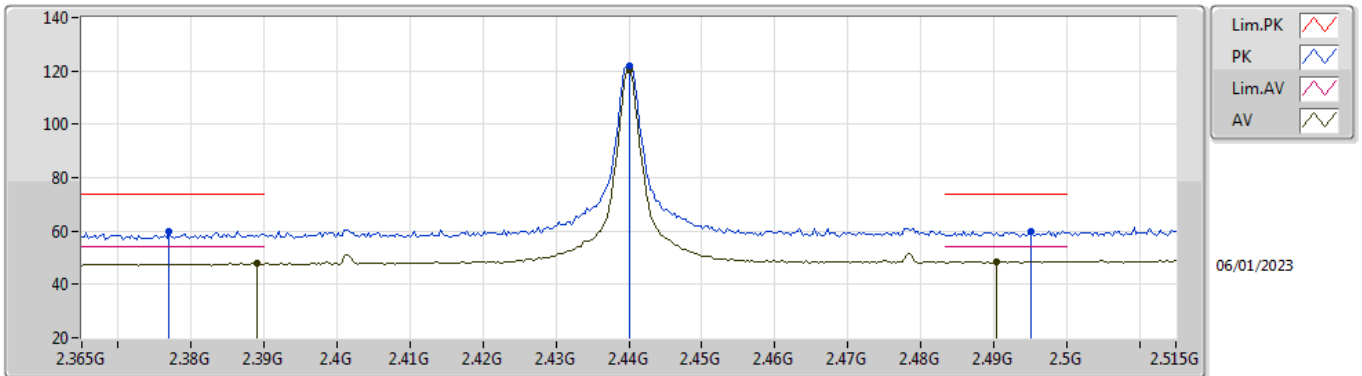


EUT_Z_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.80442G	48.41	74.00	-25.59	42.87	3	Horizontal	0	1.78	-	32.73	5.70	32.89
AV	4.80408G	37.78	54.00	-16.22	32.25	3	Horizontal	0	1.78	-	32.72	5.70	32.89

BT-LE(1Mbps)

2440MHz_TX

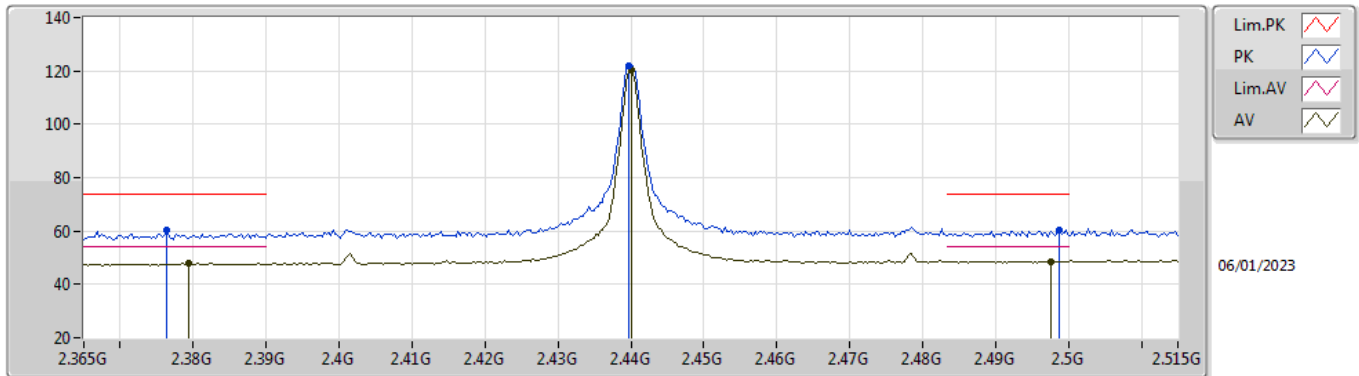


EUT_Z_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.377G	59.74	74.00	-14.26	28.41	3	Vertical	355	1.80	-	27.75	3.58	-
AV	2.389G	47.87	54.00	-6.13	16.50	3	Vertical	355	1.80	-	27.78	3.59	-
PK	2.44G	121.83	Inf	-Inf	90.33	3	Vertical	355	1.80	-	27.88	3.62	-
AV	2.44G	120.34	Inf	-Inf	88.84	3	Vertical	355	1.80	-	27.88	3.62	-
PK	2.4952G	59.82	74.00	-14.18	28.00	3	Vertical	355	1.80	-	28.17	3.65	-
AV	2.4904G	48.64	54.00	-5.36	16.85	3	Vertical	355	1.80	-	28.14	3.65	-

BT-LE(1Mbps)

2440MHz_TX

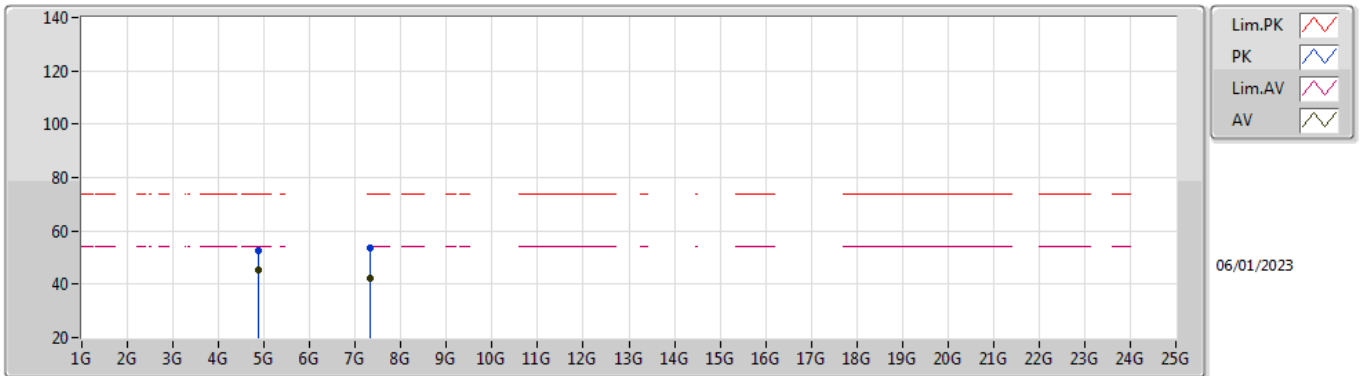


EUT_Z_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.3764G	60.36	74.00	-13.64	29.03	3	Horizontal	359	1.80	-	27.75	3.58	-
AV	2.3794G	47.83	54.00	-6.17	16.49	3	Horizontal	359	1.80	-	27.76	3.58	-
PK	2.4397G	121.71	Inf	-Inf	90.21	3	Horizontal	359	1.80	-	27.88	3.62	-
AV	2.44G	120.28	Inf	-Inf	88.78	3	Horizontal	359	1.80	-	27.88	3.62	-
PK	2.4988G	60.20	74.00	-13.80	28.36	3	Horizontal	359	1.80	-	28.19	3.65	-
AV	2.4976G	48.70	54.00	-5.30	16.86	3	Horizontal	359	1.80	-	28.19	3.65	-

BT-LE(1Mbps)

2440MHz_TX

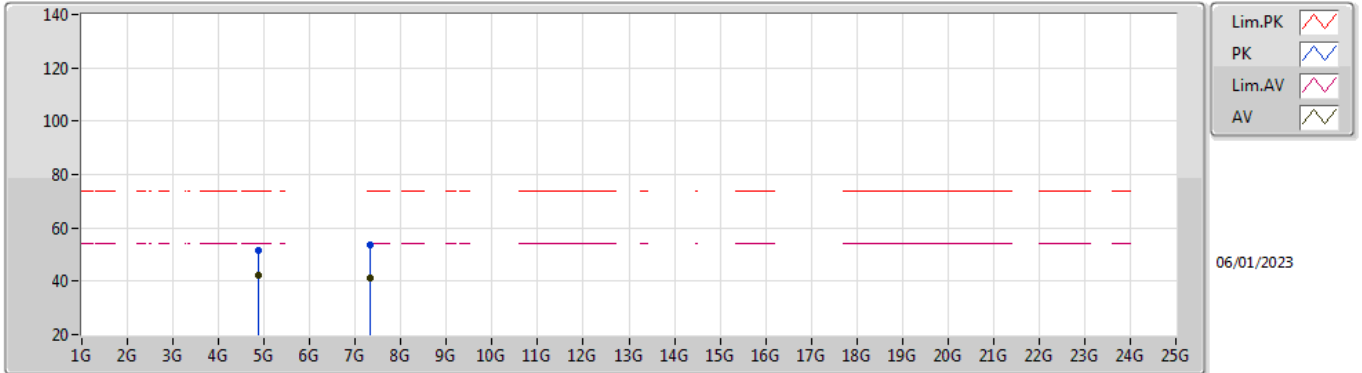


EUT_Z_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.88048G	52.58	74.00	-21.42	46.67	3	Vertical	360	1.79	-	33.00	5.78	32.87
AV	4.87986G	45.56	54.00	-8.44	39.65	3	Vertical	360	1.79	-	33.00	5.78	32.87
PK	7.32076G	53.62	74.00	-20.38	42.05	3	Vertical	207	1.83	-	37.60	7.16	33.19
AV	7.31932G	42.45	54.00	-11.55	30.88	3	Vertical	207	1.83	-	37.60	7.16	33.19

BT-LE(1Mbps)

2440MHz_TX

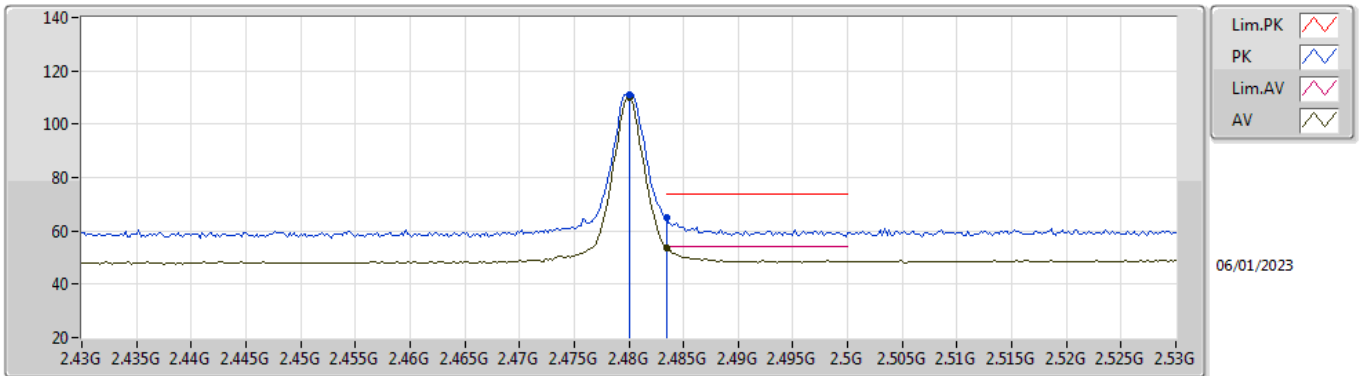


EUT_Z_1TX
Setting 200
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.87998G	51.35	74.00	-22.65	45.44	3	Horizontal	357	1.80	-	33.00	5.78	32.87
AV	4.87998G	42.44	54.00	-11.56	36.53	3	Horizontal	357	1.80	-	33.00	5.78	32.87
PK	7.321G	53.57	74.00	-20.43	42.00	3	Horizontal	214	1.80	-	37.60	7.16	33.19
AV	7.31934G	41.27	54.00	-12.73	29.70	3	Horizontal	214	1.80	-	37.60	7.16	33.19

BT-LE(1Mbps)

2480MHz_TX

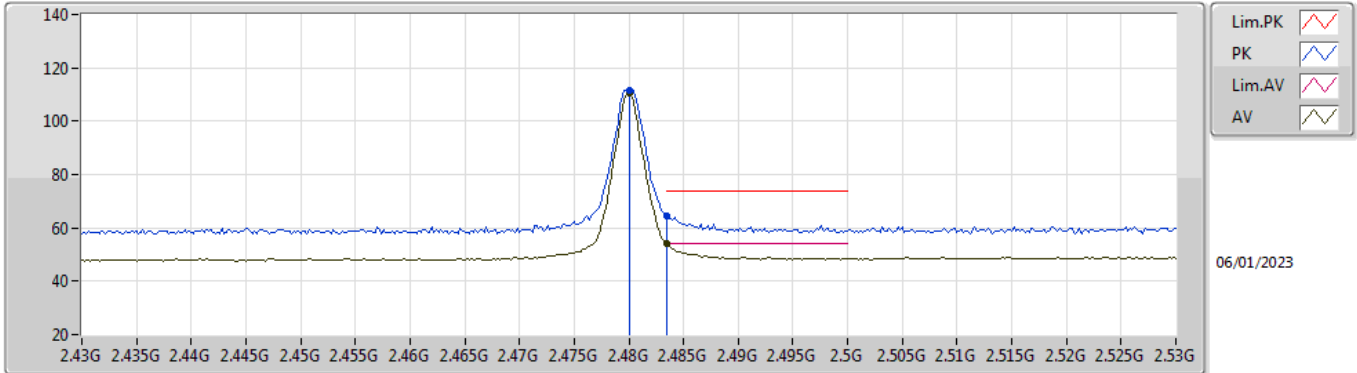


EUT_Z_1TX
Setting 85
01-B-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.48G	111.26	Inf	-Inf	79.54	3	Vertical	354	1.80	-	28.08	3.64	-
AV	2.48G	109.97	Inf	-Inf	78.25	3	Vertical	354	1.80	-	28.08	3.64	-
PK	2.4835G	64.80	74.00	-9.20	33.06	3	Vertical	354	1.80	-	28.10	3.64	-
AV	2.4835G	53.37	54.00	-0.63	21.63	3	Vertical	354	1.80	-	28.10	3.64	-

BT-LE(1Mbps)

2480MHz_TX

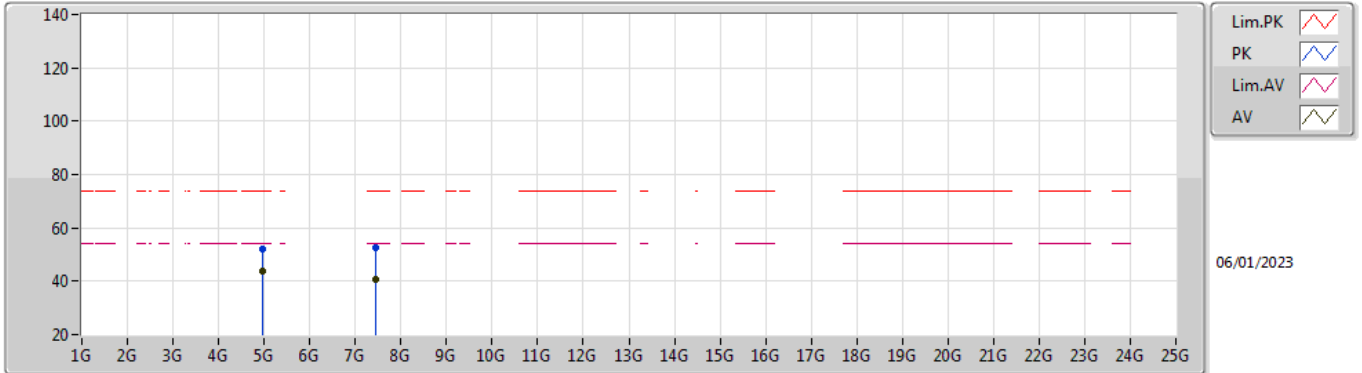


EUT_Z_1TX
Setting 85
01-B-G-5

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.48G	111.65	Inf	-Inf	79.93	3	Horizontal	0	1.51	-	28.08	3.64	-
AV	2.48G	110.29	Inf	-Inf	78.57	3	Horizontal	0	1.51	-	28.08	3.64	-
PK	2.4835G	64.28	74.00	-9.72	32.54	3	Horizontal	0	1.51	-	28.10	3.64	-
AV	2.4835G	53.93	54.00	-0.07	22.19	3	Horizontal	0	1.51	-	28.10	3.64	-

BT-LE(1Mbps)

2480MHz_TX

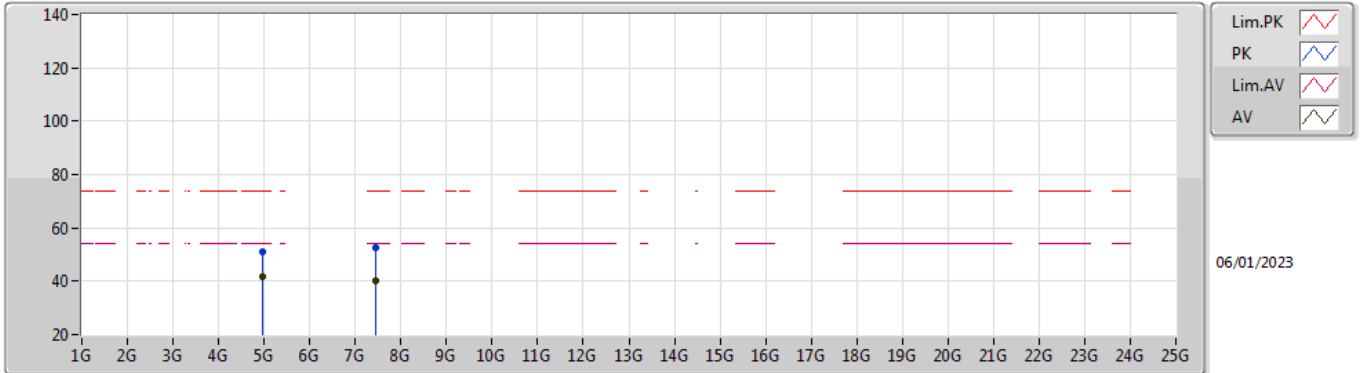


EUT_Z_1TX
Setting 85
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.95942G	52.05	74.00	-21.95	46.03	3	Vertical	0	1.96	-	33.02	5.86	32.86
AV	4.95998G	43.92	54.00	-10.08	37.90	3	Vertical	0	1.96	-	33.02	5.86	32.86
PK	7.4354G	52.67	74.00	-21.33	41.20	3	Vertical	293	1.43	-	37.50	7.22	33.25
AV	7.44186G	40.55	54.00	-13.45	29.08	3	Vertical	293	1.43	-	37.50	7.22	33.25

BT-LE(1Mbps)

2480MHz_TX

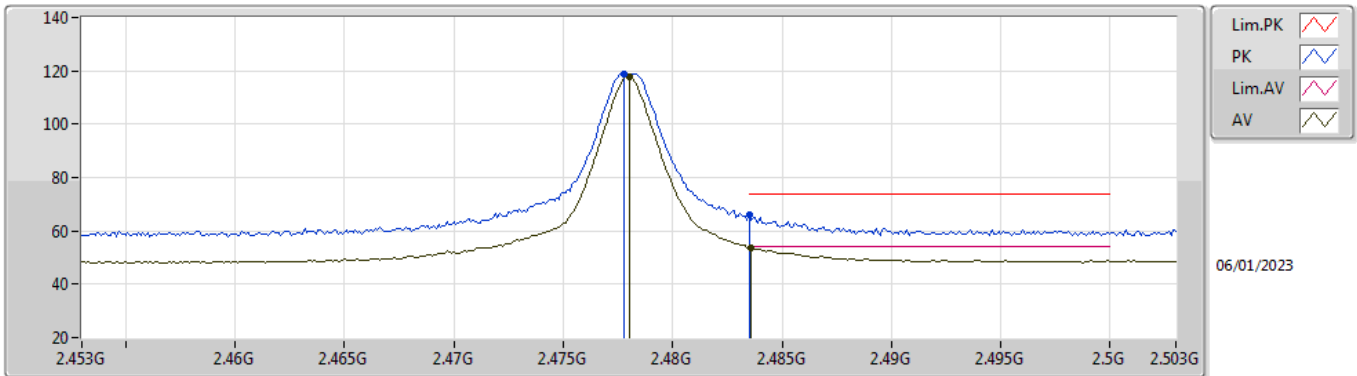


EUT_Z_1TX
Setting 85
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	4.95946G	50.94	74.00	-23.06	44.92	3	Horizontal	356	1.80	-	33.02	5.86	32.86
AV	4.95982G	41.95	54.00	-12.05	35.93	3	Horizontal	356	1.80	-	33.02	5.86	32.86
PK	7.44044G	52.42	74.00	-21.58	40.95	3	Horizontal	315	1.42	-	37.50	7.22	33.25
AV	7.4422G	40.22	54.00	-13.78	28.75	3	Horizontal	315	1.42	-	37.50	7.22	33.25

BT-LE(1Mbps)

2478MHz_TX

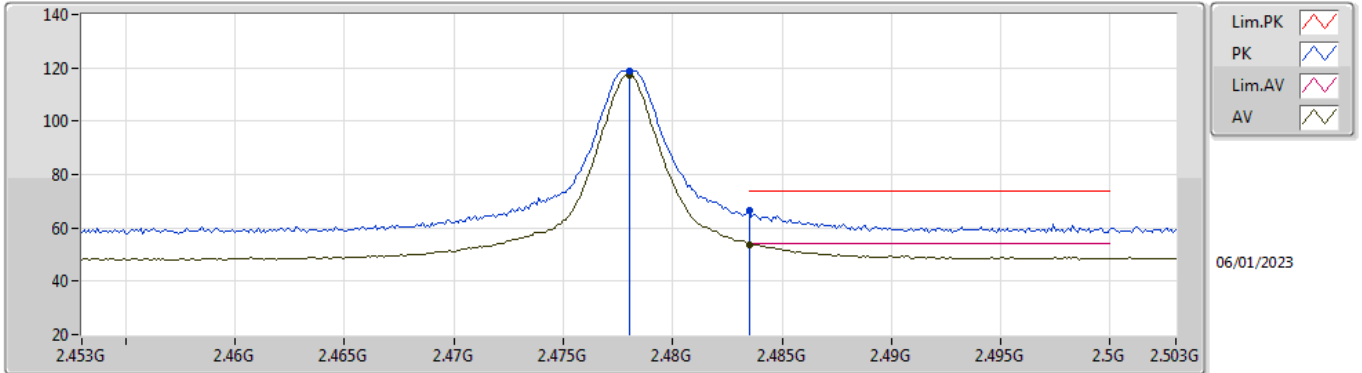


EUT_Z_1TX
Setting 155
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.4778G	118.99	Inf	-Inf	87.28	3	Vertical	357	1.78	-	28.07	3.64	-
AV	2.478G	117.67	Inf	-Inf	85.96	3	Vertical	357	1.78	-	28.07	3.64	-
PK	2.4835G	65.94	74.00	-8.06	34.20	3	Vertical	357	1.78	-	28.10	3.64	-
AV	2.4836G	53.62	54.00	-0.38	21.88	3	Vertical	357	1.78	-	28.10	3.64	-

BT-LE(1Mbps)

2478MHz_TX



EUT_Z_1TX
Setting 155
01-B-R-6

Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Raw (dBuV)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comment	AF (dB)	CL (dB)	PA (dB)
PK	2.478G	118.81	Inf	-Inf	87.10	3	Horizontal	360	1.69	-	28.07	3.64	-
AV	2.478G	117.46	Inf	-Inf	85.75	3	Horizontal	360	1.69	-	28.07	3.64	-
PK	2.4835G	66.30	74.00	-7.70	34.56	3	Horizontal	360	1.69	-	28.10	3.64	-
AV	2.4835G	53.85	54.00	-0.15	22.11	3	Horizontal	360	1.69	-	28.10	3.64	-